



STIC Search Report

EIC 1700

STIC Database Tracking Number: 178832

TO: Ardith Hertzog
Location: REM 9A20
Art Unit : 1754
February 8, 2006
Case Serial Number:
~~PCT/US04/05645~~ 10/786,671

From: Les Henderson
Location: EIC 1700
REM 4B28 / 4A30
Phone: 571-272-2538

Leslie.henderson@uspto.gov

Search Notes

Clarissa LF

CLAIMS

Therefore, having thus described the invention, at least the following is claimed:

1. A composition, comprising:
 2. a metal nitrate selected from d-block metal nitrates and f-block metal nitrates; and
 4. a metal salt having weakly bound counter anions, wherein the metal of the metal salt having weakly bound counter anions is selected from a d-block metal and an f-block metal.
 1. 2. The composition of claim 1, wherein the metal nitrate is selected from iron (III) nitrate, cobalt (II) nitrate, nickel (II) nitrate, copper (II) nitrate, cerium (III) nitrate and cerium (IV) nitrate.
 1. 2. 3. The composition of claim 1, wherein the metal salt having weakly bound counter anions is selected from copper (II) perchlorate, copper (II) trifluoromethanesulfonate, and copper (II) tetrafluoroborate.
 1. 2. 3. 4. The composition of claim 1, wherein the metal nitrate is selected from iron (III) nitrate, cobalt (II) nitrate, nickel (II) nitrate, copper (II) nitrate, cerium (III) nitrate and cerium (IV) nitrate, and wherein the metal salt having weakly bound counter anions is selected from copper (II) perchlorate, copper (II) trifluoromethanesulfonate, and copper (II) tetrafluoroborate.
 1. 2. 3. The composition of claim 1, wherein the metal nitrate is copper nitrate and the metal salt having weakly bound counter anions is copper trifluoromethanesulfonate.
 1. 6. The composition of claim 1, further comprising a polyoxometalate.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov



CONFIRMATION NO. 3022

3ib Data Sheet

SERIAL NUMBER 10/786,671	FILING DATE 02/25/2004 RULE	CLASS 588	GROUP ART UNIT 1754	ATTORNEY DOCKET NO. 50508-1190
-----------------------------	-----------------------------------	--------------	------------------------	--------------------------------------

APPlicants

Nelya Okun, Alpharetta, GA;

Craig L. Hill, Atlanta, GA;

(PCT is based on this
US case)

* CONTINUING DATA *****

This appln claims benefit of 60/449,892 02/25/2003

* FOREIGN APPLICATIONS *****

** SMALL ENTITY **

Foreign Priority claimed	<input type="checkbox"/> yes <input type="checkbox"/> no	STATE OR COUNTRY	SHEETS	TOTAL	INDEPENDENT
35 USC 119 (a-d) conditions met	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance	GA	DRAWING 0	CLAIMS 58	CLAIMS 2
Verified and Acknowledged	Examiner's Signature _____ Initials _____				

ADDRESS

24504
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP
100 GALLERIA PARKWAY, NW
STE 1750
ATLANTA, GA
30339-5948

TITLE

Compositions, materials incorporating the compositions, and methods of using the compositions and materials

FILING FEE	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit
RECEIVED 792		

=> d his ful

(FILE 'HOME' ENTERED AT 09:48:09 ON 08 FEB 2006)

FILE 'HCAPLUS' ENTERED AT 09:48:36 ON 08 FEB 2006
E US20040230086/PN

L1 1 SEA ABB=ON PLU=ON US20040230086/PN
D ALL
SEL RN

FILE 'REGISTRY' ENTERED AT 09:50:45 ON 08 FEB 2006

L2 41 SEA ABB=ON PLU=ON (100-42-5/BI OR 10108-73-3/BI OR
10141-05-6/BI OR 10421-48-4/BI OR 107-92-6/BI OR
109-52-4/BI OR 110-81-6/BI OR 110-86-1/BI OR 13093-17-9
/BI OR 13138-45-9/BI OR 134360-58-0/BI OR 13770-18-8/BI
OR 3251-23-8/BI OR 34946-82-2/BI OR 352-93-2/BI OR
38465-60-0/BI OR 50-00-0/BI OR 503-74-2/BI OR 505-60-2/
BI OR 57-12-5/BI OR 59858-44-5/BI OR 624-92-0/BI OR
630-08-0/BI OR 693-07-2/BI OR 74-93-1/BI OR 7439-89-6/B
I OR 7440-22-4/BI OR 7440-33-7/BI OR 7440-38-2/BI OR
7440-45-1/BI OR 75-07-0/BI OR 75-18-3/BI OR 75-44-5/BI
OR 75-50-3/BI OR 7664-41-7/BI OR 7704-34-9/BI OR
7727-37-9/BI OR 7783-06-4/BI OR 79-09-4/BI OR 795308-36
-0/BI OR 796042-78-9/BI)

L3 6 SEA ABB=ON PLU=ON L2 AND HNO3
D SCAN

L4 13 SEA ABB=ON PLU=ON L2 AND 2/NC
D SCAN

L5 28 SEA ABB=ON PLU=ON L2 NOT L4
D SCAN

L6 7 SEA ABB=ON PLU=ON L4 NOT L3
D SCAN

L7 3069335 SEA ABB=ON PLU=ON (T1 OR T2 OR T3 OR LNTH OR ACTN OR
SHEL)/PG

L8 513926 SEA ABB=ON PLU=ON L7 AND 4/ELC.SUB

L9 3918 SEA ABB=ON PLU=ON L7 AND (H(L)N(L)O)/ELS(L)4/ELC.SUB

L10 1184 SEA ABB=ON PLU=ON L9 AND (HNO3 OR NO3)

L11 2734 SEA ABB=ON PLU=ON L9 NOT L10

L12 23 SEA ABB=ON PLU=ON L7 AND (CL(L)O)/ELS(L)3/ELC.SUB
AND CLO4

D SCAN L6

L13 3 SEA ABB=ON PLU=ON L6 AND 1/CU
D SCAN

L14 35316 SEA ABB=ON PLU=ON L7 AND (BF4 OR CHF3O3S)

L15 1447 SEA ABB=ON PLU=ON L14 NOT 1-50/NR

L16 32 SEA ABB=ON PLU=ON (L15 AND BF4) AND 3/ELC.SUB

L17 0 SEA ABB=ON PLU=ON (L15 AND CF3O3S) AND 6/ELC.SUB

L18 1158 SEA ABB=ON PLU=ON L7 AND (TRIFLATE OR TRIFLUOROMETHAN
ESULFONATE)

L19 138 SEA ABB=ON PLU=ON L18 NOT 1-100/NR

L20 77 SEA ABB=ON PLU=ON L19 AND (((C(L)H(L)F(L)O(L)S)/ELS(L
)6/ELC.SUB) OR ((C(L)F(L)O(L)S)/ELS(L)5/ELC.SUB))

L21 3 SEA ABB=ON PLU=ON L20 AND 1/NC

D SCAN

L22 60 SEA ABB=ON PLU=ON L20 AND 2/NC

D SCAN L21

L23 14 SEA ABB=ON PLU=ON L20 NOT (L21 OR L22)

D SCAN

L24 13 SEA ABB=ON PLU=ON L23 NOT C6H9AG

L25 73 SEA ABB=ON PLU=ON L24 OR L22

FILE 'HCAPLUS' ENTERED AT 11:32:50 ON 08 FEB 2006

L26 16041 SEA ABB=ON PLU=ON L3

L27 2027 SEA ABB=ON PLU=ON L13

L28 181 SEA ABB=ON PLU=ON L26 AND L27

L29 QUE ABB=ON PLU=ON COMPOSIT? OR COMPN# OR COMPSN#

L30 20 SEA ABB=ON PLU=ON L28 (L) L29
 L31 0 SEA ABB=ON PLU=ON (L26 (L) L27) (L) L29
 L32 2 SEA ABB=ON PLU=ON (L26 (L) L27)
 D SCAN
 L33 1 SEA ABB=ON PLU=ON L26 (4A) L27
 D SCAN
 L34 20 SEA ABB=ON PLU=ON L28 AND L29
 D SCAN
 L35 QUE ABB=ON PLU=ON (MIXT# OR MIXTURE? OR BLEND? OR
 ADMIX? OR COMMIX? OR IMMX? OR INTERMIX? OR COMPOSIT?
 OR COMPN# OR COMPSN# OR FORMULAT? OR INTERSPER?)/TI
 L36 13 SEA ABB=ON PLU=ON L28 AND L35
 D SCAN TI
 L37 1 SEA ABB=ON PLU=ON L1 AND L36
 D SCAN
 L38 429744 SEA ABB=ON PLU=ON AIR POLLUTION/SC, SX
 L39 1 SEA ABB=ON PLU=ON L38 AND L34
 L40 1 SEA ABB=ON PLU=ON L28 AND L39
 D SCAN
 L41 526458 SEA ABB=ON PLU=ON TOX?/SC, SX
 L42 2 SEA ABB=ON PLU=ON L28 AND L41
 D SCAN
 L43 1252802 SEA ABB=ON PLU=ON PHARMACOL?/SC, SX
 L44 4 SEA ABB=ON PLU=ON L28 AND L43
 D SCAN
 L45 26254 SEA ABB=ON PLU=ON WEAK? (2A) (BOND? OR BOUND? OR
 BIND?)
 L46 2 SEA ABB=ON PLU=ON L45 AND L28
 D SCAN
 L47 3664 SEA ABB=ON PLU=ON WEAK? (2A) ANION?
 L48 2 SEA ABB=ON PLU=ON L47 AND L28
 D SCAN TI
 L49 QUE ABB=ON PLU=ON CONTAMIN? OR POLLUT? OR TOX? OR
 POISON?
 L50 6 SEA ABB=ON PLU=ON L49 AND L28
 D SCAN
 L51 QUE ABB=ON PLU=ON PURE OR PURIF? OR CLEAN? OR
 DECONTAM?
 L52 5 SEA ABB=ON PLU=ON L28 AND L51
 D SCAN TI
 L53 QUE ABB=ON PLU=ON MIX? OR MIXT# OR MIXTURE? OR
 BLEND? OR ADMIX? OR COMMIX?
 L54 QUE ABB=ON PLU=ON IMMX? OR INTERMIX? OR DOPE# OR
 DOPING# OR DOPANT# OR IMPREGNAT? OR COMPOSIT? OR
 COMPN#
 QUE ABB=ON PLU=ON COMPSN# OR FORMULAT? OR COMBINAT?
 OR INTERSPER? OR AMALGAM?
 L56 64 SEA ABB=ON PLU=ON L28 AND ((L53 OR L54 OR L55))
 D SCAN TI
 L57 43 SEA ABB=ON PLU=ON L56 NOT (L30 OR L36)
 D SCAN TI
 L58 1 SEA ABB=ON PLU=ON L57 AND (L38 OR L41 OR L43)
 D SCAN
 L59 64 SEA ABB=ON PLU=ON L56 OR L30 OR L36
 L60 QUE ABB=ON PLU=ON WAR? OR EXPLO?
 L61 4 SEA ABB=ON PLU=ON L59 AND L60
 L62 59360 SEA ABB=ON PLU=ON L9
 L63 249 SEA ABB=ON PLU=ON L12
 L64 1626 SEA ABB=ON PLU=ON L16
 L65 4018 SEA ABB=ON PLU=ON L25
 L66 351 SEA ABB=ON PLU=ON L62 AND (L63 OR L64 OR L65)
 L67 281 SEA ABB=ON PLU=ON L66 NOT L28
 L68 31 SEA ABB=ON PLU=ON L67 AND L29
 L69 1 SEA ABB=ON PLU=ON L68 AND (L38 OR L41 OR L43 OR L45
 OR L47 OR L49 OR L51 OR L60)
 D SCAN

D KWIC

L70 110 SEA ABB=ON PLU=ON L67 AND (L53 OR L54 OR L55)
 L71 12 SEA ABB=ON PLU=ON L70 AND (L38 OR L41 OR L43 OR L45
 OR L47 OR L49 OR L51 OR L60)
 D SCAN TI

L72 42 SEA ABB=ON PLU=ON L68 OR L71
 L73 35 SEA ABB=ON PLU=ON OKUN N?/AU
 L74 2316 SEA ABB=ON PLU=ON HILL C?/AU
 L75 10 SEA ABB=ON PLU=ON L74 AND L73
 D SCAN TI

L76 3 SEA ABB=ON PLU=ON L75 AND L28
 D SCAN

L77 24 SEA ABB=ON PLU=ON L36 OR L39 OR L40 OR L42 OR L44 OR
 L46 OR L48 OR L50 OR L52 OR L58 OR L61
 L78 30 SEA ABB=ON PLU=ON L77 OR L30 OR L34
 L79 25 SEA ABB=ON PLU=ON L78 NOT (L58 OR L61)
 L80 5 SEA ABB=ON PLU=ON L78 NOT L79
 D SCAN

L81 42 SEA ABB=ON PLU=ON L72 NOT L78
 L82 12 SEA ABB=ON PLU=ON L69 OR L71
 L83 30 SEA ABB=ON PLU=ON L72 NOT L82
 L84 43 SEA ABB=ON PLU=ON L78 OR L82 OR L76
 L85 30 SEA ABB=ON PLU=ON L72 NOT L84
 D SCAN TI

L86 2 SEA ABB=ON PLU=ON L85 AND (BLEACH? OR PRESERV?)
 D SCAN

L87 28 SEA ABB=ON PLU=ON L85 NOT L86
 L88 45 SEA ABB=ON PLU=ON L84 OR L86

=> => d 188 1-45 ibib abs hitstr hitind

L88 ANSWER 1 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:1307651 HCPLUS
 DOCUMENT NUMBER: 144:53781
 TITLE: Liquid media containing Lewis acidic reactive
 compounds for storage and delivery of Lewis
 basic gases
 INVENTOR(S): Tempel, Daniel Joseph; Henderson, Philip
 Bruce; Brzozowski, Jeffrey Richard;
 Pearlstein, Ronald Martin; Gaffney, Thomas
 Richard
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 11 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005276733	A1	20051215	US 2004-867068	2004 0614
EP 1607674	A1	20051221	EP 2005-12660	2005 0613
JP 2006002939	A2	20060105	JP 2005-173618	2005 0614

PRIORITY APPLN. INFO.: US 2004-867068 A

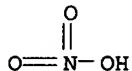
2004
0614

AB In the low-pressure storage and delivery system for gases having Lewis basicity, particularly hazardous specialty gases such as phosphine and arsine, which are utilized in the electronics industry, the gases are stored in a liquid incorporating a reactive compound having Lewis acidity capable of effecting a reversible reaction between itself and the gas having Lewis basicity. The reactive compound comprises a reactive species that is dissolved, suspended, dispersed, or otherwise mixed with a nonvolatile liquid

IT 7761-88-8, Silver nitrate (AgNO₃), uses 14104-20-2
, Silver fluoroborate (AgBF₄) 38465-60-0
54761-04-5
RL: NUU (Other use, unclassified); USES (Uses)
(liquid media containing Lewis acidic reactive compds. for storage
and delivery of Lewis basic gases)

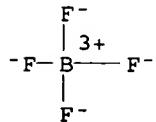
RN 7761-88-8 HCPLUS

CN Nitric acid silver(1+) salt (8CI, 9CI) (CA INDEX NAME)



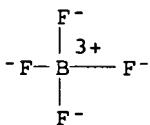
● Ag(I)

RN 14104-20-2 HCPLUS
CN Borate(1-), tetrafluoro-, silver(1+) (8CI, 9CI) (CA INDEX NAME)



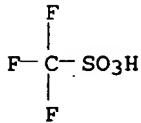
● Ag(I) +

RN 38465-60-0 HCPLUS
CN Borate(1-), tetrafluoro-, copper(2+) (2:1) (9CI) (CA INDEX NAME)



● 1/2 Cu(II) 2+

RN 54761-04-5 HCPLUS
CN Methanesulfonic acid, trifluoro-, ytterbium(3+) salt (9CI) (CA INDEX NAME)



● 1/3 Yb(III)

IC ICM B01J008-02

INCL 422211000

CC 48-4 (Unit Operations and Processes)

Section cross-reference(s): 59, 76

IT 65-85-0, Benzoic acid, uses 75-46-7D, Carbon trifluoride, N-alkylpyridinium, tetraalkylammonium, or tetraalkylphosphonium salts 75-93-4D, Methyl sulfate, N-alkylpyridinium, tetraalkylammonium, or tetraalkylphosphonium salts 75-98-9 104-15-4, p-Toluenesulfonic acid, uses 122-56-5, Tributylborane 142-71-2, Copper acetate 540-82-9D, Ethyl sulfate, N-alkylpyridinium, tetraalkylammonium, or tetraalkylphosphonium salts 544-92-3, Copper cyanide (Cu(CN)) 688-74-4, Tributyl borate 1109-15-5, Tris(perfluorophenyl)borane 1273-81-0, Osmocene 1287-13-4, Ruthenocene 1510-16-3, Dodecylsulfonic acid 2035-66-7, Palladium cyanide (Pd(CN)2) 2966-50-9 3112-67-2 4403-68-3 4767-03-7, Dimethylolpropionic acid 5138-18-1D, Sulfosuccinic acid, dialkyl derivs. 7439-95-4D, Magnesium, complexes with bisoxazoline 7440-05-3D, Palladium, complexes with bisoxazoline 7440-50-8D, Copper, complexes with bisoxazoline 7440-66-6D, Zinc, complexes with bisoxazoline 7446-70-0, Aluminum chloride (AlCl3), uses 7447-39-4, Cupric chloride, uses 7550-45-0, Titanium chloride (TiCl4), uses 7646-78-8, Tin chloride (SnCl4), uses 7646-85-7, Zinc chloride (ZnCl2), uses 7647-10-1, Palladium chloride (PdCl2) 7647-18-9, Antimony chloride (SbCl5) 7681-65-4, Copper iodide (CuI) 7705-08-0, Ferric chloride, uses 7718-54-9, Nickel chloride (NiCl2), uses 7758-89-6, Copper chloride (CuCl) 7761-88-8, Silver nitrate (AgNO3), uses 7772-99-8, Tin chloride (SnCl2), uses 7773-01-5, Manganese chloride (MnCl2) 7783-90-6, Silver chloride (AgCl), uses 7783-96-2, Silver iodide 7785-23-1, Silver bromide (AgBr) 7786-30-3, Magnesium chloride (MgCl2), uses 7787-70-4, Copper monobromide 9003-70-7D, Polystyrene-divinylbenzene copolymer, sulfonated 10025-82-8, Indium chloride (InCl3) 10025-91-9, Antimony chloride (SbCl3) 10026-11-6, Zirconium chloride (ZrCl4) 10026-12-7, Niobium chloride (NbCl5) 10043-52-4, Calcium chloride (CaCl2), uses 13450-90-3, Gallium chloride (GaCl3) 13454-96-1, Platinum chloride (PtCl4) 14104-20-2, Silver fluoroborate (AgBF4) 14220-26-9 14798-03-9D, Ammonium, tetraalkyl derivs. 14874-70-5D, Tetrafluoroborate, N-alkylpyridinium, tetraalkylammonium, or tetraalkylphosphonium salts 15388-37-1 16712-25-7, Copper trifluoroacetate 16722-51-3D, N-alkylpyridinium, tetraalkylammonium, or tetraalkylphosphonium salts, uses 16749-13-6D, Phosphonium, tetraalkyl derivs. 16919-18-9D, Hexafluorophosphate, N-alkylpyridinium, tetraalkylammonium, or tetraalkylphosphonium salts 16969-45-2D, Pyridinium, N-alkyl 17009-90-4D, Imidazolium, N,N'-dialkyl 17009-91-5, Pyrazolium 17009-93-7, Pyrazinium 17009-95-9, Pyrimidinium 17009-97-1, Pyridazinium 21228-90-0D, N-alkylpyridinium, tetraalkylammonium, or tetraalkylphosphonium salts 25322-68-3, Poly(ethylene oxide) 25535-55-1 27176-87-0, Dodecylbenzenesulfonic acid 28589-79-9, Thiazolium 36554-89-9 37181-39-8D, Triflate, N-alkylpyridinium,

tetraalkylammonium, or tetraalkylphosphonium salts
 38465-60-0 48028-76-8D, N-alkylpyridinium,
 tetraalkylammonium, or tetraalkylphosphonium salts
 54761-04-5 56743-27-2, Dimethylolbutanoic acid
 57048-33-6, Copper hexafluoroarsenate 57811-65-1 60821-13-8
 60884-90-4 61674-41-7D, Boron fluoride (BF4-),
 N-alkylpyridinium, tetraalkylammonium, or tetraalkylphosphonium
 salts 64001-57-6, Oxazolium 65039-03-4, 1-Ethyl-3-
 methylimidazolium 70236-92-9 80432-08-2, 1-Butyl-3-
 methylimidazolium 82113-65-3D, Bis(trifluoromethylsulfonyl)imide
 , N-alkylpyridinium, tetraalkylammonium, or tetraalkylphosphonium
 salts 98837-98-0D, N-alkylpyridinium, tetraalkylammonium, or
 tetraalkylphosphonium salts 117288-37-6 188261-99-6
 220035-23-4 220835-52-9, Platinum iodide 291300-50-0
 871465-85-9 871465-86-0 871466-50-1 871466-51-2
 RL: NUU (Other use, unclassified); USES (Uses)
 (liquid media containing Lewis acidic reactive compds. for storage
 and delivery of Lewis basic gases)

L88 ANSWER 2 OF 45 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:55203 HCAPLUS

DOCUMENT NUMBER: 142:155822

TITLE: Hydrogen peroxide catalyzed alkoxylation of
 nitroxyl compounds to sterically hindered
 N-hydrocarboxyloxyamines, especially
 N-hydrocarboxyloxy-2,2,6,6-piperidines

INVENTOR(S): Galbo, James Peter; Detlefson, Robert Edward

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

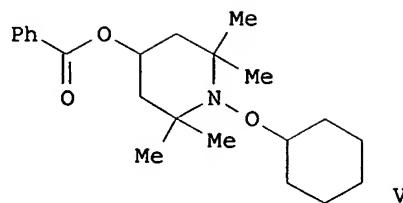
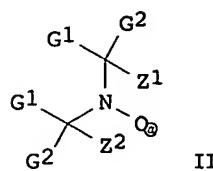
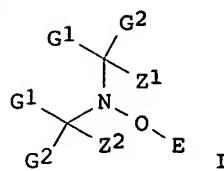
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
WO 2005005388	A1	20050120	WO 2004-EP51352	2004 0705
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2005014948	A1	20050120	US 2004-889339	2004 0712

PRIORITY APPLN. INFO.:	US 2003-486994P	P
		2003 0714

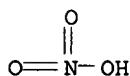
OTHER SOURCE(S): CASREACT 142:155822; MARPAT 142:155822
 GI



AB The invention is directed to the preparation of sterically hindered N-hydrocarbyloxyamines I, well-known as thermal and light stabilizers, by alkoxylation of hindered amine N-oxyl compds. II with a hydrocarbon solvent containing no activated hydrogen atoms in the presence of hydrogen peroxide or a hydrogen peroxide equivalent, a catalytic amount of a peroxide decomposing transition metal salt, metal oxide, or metal-ligand complex, an inert cosolvent and an optionally acid [wherein G1, G2 = independently alkyl or are together pentamethylene; Z1, Z2 = each Me, or Z1 and Z2 together form a (un)substituted linking moiety; E = alkyl, cycloalkyl, bicycloalkyl, etc; with the provision that in the hydrocarbon, no carbon atom attached to an aromatic ring is substituted by H]. The advantages include use of less toxic solvents, cheap oxidation reagents, absence of additives, and lower reaction temperature. Thus, dropwise addition at reflux over 4.75 h of 50% aqueous H₂O₂ to a preheated mixture containing FeSO₄•7H₂O (III), CH₃SO₃H (IV), 1-oxyl-4-benzoyloxy-2,2,6,6-tetramethylpiperidine, acetonitrile and hexane, with addnl. portions of III and IV added after 1 and 2.25 h after the peroxide addition started, gave 65% V.

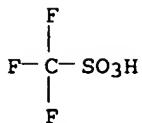
IT 10421-48-4, Iron(III) nitrate 34946-82-2,
Copper(II) trifluoromethanesulfonate
RL: CAT (Catalyst use); USES (Uses)
(preparation of sterically hindered N-hydrocarbyloxyamines, in particular N-hydrocarbyloxy-2,2,6,6-piperidines, by hydrogen peroxide catalyzed alkoxylation of N-oxyl compds.)

RN 10421-48-4 HCPLUS
CN Nitric acid, iron(3+) salt (8CI, 9CI) (CA INDEX NAME)



●1/3 Fe(III)

RN 34946-82-2 HCPLUS
CN Methanesulfonic acid, trifluoro-, copper(2+) salt (9CI) (CA INDEX NAME)



● 1/2 Cu(II)

IC ICM C07D211-94
 CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
 Section cross-reference(s): 45
 IT 124-43-6, Urea hydrogen peroxide 516-03-0, Iron(II) oxalate
 818-08-6, Dibutyltin oxide 992-92-7, Titanium tetramethoxide
 1282-37-7, Ferrocenium tetrafluoroborate 1309-37-1, Iron(III)
 oxide, uses 1317-38-0, Copper(II) oxide, uses 1317-39-1,
 Copper(I) oxide, uses 1317-61-9, Iron oxide (Fe₃O₄), uses
 1345-25-1, Iron(II) oxide, uses 2944-66-3 3094-87-9, Iron(II)
 acetate 3522-50-7, Iron(III) citrate 5593-70-4, Titanium
 tetrabutoxide 5781-22-6, Iron(II) trifluoroacetate 7439-89-6,
 Iron, uses 7440-50-8, Copper, uses 7447-39-4, Copper(II)
 chloride, uses 7646-78-8, Tin tetrachloride, uses 7646-79-9,
 Cobalt(II) chloride, uses 7705-07-9, Titanium(III) chloride,
 uses 7705-08-0, Iron(III) chloride, uses 7718-98-1, Vanadium
 trichloride 7722-84-1, Hydrogen peroxide, uses 7758-89-6,
 Copper(I) chloride 7758-94-3, Iron(II) chloride 7758-98-7,
 Copper(II) sulfate, uses 7773-01-5, Manganese dichloride
 7790-86-5, Cerium trichloride 10028-22-5, Iron(III) sulfate
 10421-48-4, Iron(III) nitrate 10580-52-6, Vanadium
 dichloride 11077-24-0, Ferrocenium hexafluorophosphate
 13537-24-1, Iron(III) perchlorate 13933-23-8, Iron(II)
 perchlorate 14024-17-0, Iron(II) acetylacetone 15283-51-9,
 Iron(II) tetrafluoroborate 16712-25-7, Copper(II)
 trifluoroacetate 23383-11-1, Ferrous citrate 34946-82-2
 , Copper(II) trifluoromethanesulfonate 60344-03-8, Ferrous
 pivalate 77214-82-5, Iron(III) p-toluenesulfonate 125689-93-2
 138124-32-0 176763-62-5
 RL: CAT (Catalyst use); USES (Uses)
 (preparation of sterically hindered N-hydrocarbyloxyamines, in
 particular N-hydrocarbyloxy-2,2,6,6-piperidines, by hydrogen
 peroxide catalyzed alkoxylation of N-oxyl compds.)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L88 ANSWER 3 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:999712 HCPLUS
 DOCUMENT NUMBER: 141:427184
 TITLE: Compositions, materials
 incorporating the compositions, and
 methods of using the compositions
 and materials
 INVENTOR(S): Okun, Nelya; Hill, Craig L.
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 8 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

 US 2004230086 A1 20041118 US 2004-786671
 2004
 0225
 WO 2005021435 A2 20050310 WO 2004-US5645
 2004
 0225

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
 CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
 ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
 KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
 MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
 PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
 TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW,
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY,
 CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
 NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA,
 GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-449892P P
 2003
 0225

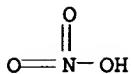
US 2004-786671 A
 2004
 0225

AB Compns. that can protect and/or remove
 contaminants such as warfare agents from the
 environment in which people are operating are disclosed, as are
 materials incorporating the compns., and methods of use
 thereof. In one embodiment, the composition includes a metal
 nitrate selected from d-block metal nitrates and f-block metal
 nitrates and a metal salt having weakly bound
 counter anions. The metal of the metal salt having
 weakly bound counter anions is
 selected from a d-block metal and an f-block metal. Another
 embodiment of the composition includes a first
 polyoxometalate having a first metal selected from a d-block metal
 and an f-block metal and a second polyoxometalate having a second
 metal selected from a d-block metal and an f-block metal, the
 first metal being an open coordinate site of the first
 polyoxometalate. In addition, the first metal has a nitrate terminal
 ligand.

IT 3251-23-8, Copper (II) nitrate 10108-73-3,
 Cerium (III) nitrate 10141-05-6, Cobalt (II) nitrate
 10421-48-4, Iron (III) nitrate 13093-17-9
 13138-45-9, Nickel (II) nitrate 13770-18-8,
 Copper (II) perchlorate 34946-82-2, Copper (II)
 trifluoromethanesulfonate 38465-60-0, Copper (II)
 tetrafluoroborate

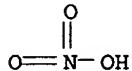
RL: CAT (Catalyst use); USES (Uses)
 (catalytic compns. for removal of
 contaminants such as warfare agents, and
 materials incorporating these compns.)

RN 3251-23-8 HCAPLUS
 CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



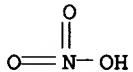
● 1/2 Cu(II)

RN 10108-73-3 HCPLUS
CN Nitric acid, cerium(3+) salt (8CI, 9CI) (CA INDEX NAME)



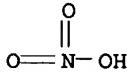
● 1/3 Ce(III)

RN 10141-05-6 HCPLUS
CN Nitric acid, cobalt(2+) salt (8CI, 9CI) (CA INDEX NAME)



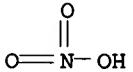
● 1/2 Co(II)

RN 10421-48-4 HCPLUS
CN Nitric acid, iron(3+) salt (8CI, 9CI) (CA INDEX NAME)



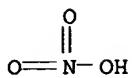
● 1/3 Fe(III)

RN 13093-17-9 HCPLUS
CN Nitric acid, cerium(4+) salt (8CI, 9CI) (CA INDEX NAME)



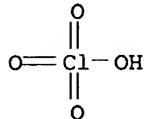
● 1/4 Ce(IV)

RN 13138-45-9 HCPLUS
CN Nitric acid, nickel(2+) salt (8CI, 9CI) (CA INDEX NAME)



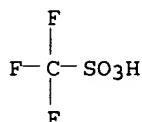
● 1/2 Ni(II)

RN 13770-18-8 HCPLUS
 CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



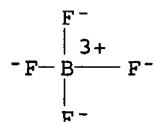
● 1/2 Cu(II)

RN 34946-82-2 HCPLUS
 CN Methanesulfonic acid, trifluoro-, copper(2+) salt (9CI) (CA INDEX NAME)



● 1/2 Cu(II)

RN 38465-60-0 HCPLUS
 CN Borate(1-), tetrafluoro-, copper(2+) (2:1) (9CI) (CA INDEX NAME)



● 1/2 Cu(II) 2+

IC ICM A62D003-00
 ICS C11D001-00
 INCL 588205000
 CC 59-2 (Air Pollution and Industrial Hygiene)
 Section cross-reference(s): 4
 ST polyoxometalate nitrate copper catalytic oxidn warfare agent
 IT Biological warfare agents
 Chemical warfare agents
 Coating materials

Environmental pollution control
 Oxidation catalysts
 Powders
 Textiles
 (catalytic compns. for removal of
 contaminants such as warfare agents, and
 materials incorporating these compns.)

IT Aldehydes, processes
 RL: ADV (Adverse effect, including toxicity); CPS (Chemical process); PEP (Physical, engineering or chemical process); POL (Pollutant); REM (Removal or disposal); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
 (catalytic compns. for removal of
 contaminants such as warfare agents, and
 materials incorporating these compns.)

IT Oxidation
 (catalytic; catalytic compns. for removal of
 contaminants such as warfare agents, and
 materials incorporating these compns.)

IT Drug delivery systems
 (topical; catalytic compns. for removal of
 contaminants such as warfare agents, and
 materials incorporating these compns.)

IT Heteropoly acids
 RL: CAT (Catalyst use); USES (Uses)
 (tungstates, complexes with iron, silver, and/or cerium;
 catalytic compns. for removal of contaminants
 such as warfare agents, and materials incorporating
 these compns.)

IT 7727-37-9D, Nitrogen, compds.
 RL: ADV (Adverse effect, including toxicity); CPS (Chemical process); PEP (Physical, engineering or chemical process); POL (Pollutant); REM (Removal or disposal); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
 (aliphatic; catalytic compns. for removal of
 contaminants such as warfare agents, and
 materials incorporating these compns.)

IT 7440-33-7D, Tungsten, heteropoly compds. containing, complexes with
 iron 59858-44-5 134360-58-0 795308-36-0 796042-78-9
 RL: CAT (Catalyst use); USES (Uses)
 (as polyoxometalate; catalytic compns. for removal of
 contaminants such as warfare agents, and
 materials incorporating these compns.)

IT 50-00-0, Formaldehyde, processes 57-12-5D, Cyanide, compds.
 74-93-1, Methyl mercaptan, processes 75-07-0, Acetaldehyde,
 processes 75-18-3, Dimethyl sulfide 75-44-5, Phosgene
 75-50-3, Trimethylamine, processes 79-09-4, Propionic acid,
 processes 100-42-5, Styrene, processes 107-92-6, Butyric acid,
 processes 109-52-4, Valeric acid, processes 110-81-6, Diethyl
 disulfide 110-86-1, Pyridine, processes 352-93-2, Diethyl
 sulfide 503-74-2, Iso-valeric acid 505-60-2, Mustard gas
 624-92-0 630-08-0, Carbon monoxide, processes 693-07-2,
 2-Chloroethyl ethyl sulfide 7440-38-2D, Arsenic, compds.
 7664-41-7, Ammonia, processes 7704-34-9D, Sulfur, compds.
 7783-06-4, Hydrogen sulfide, processes
 RL: ADV (Adverse effect, including toxicity); CPS (Chemical process); PEP (Physical, engineering or chemical process); POL (Pollutant); REM (Removal or disposal); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
 (catalytic compns. for removal of
 contaminants such as warfare agents, and
 materials incorporating these compns.)

IT 3251-23-8, Copper (II) nitrate 7439-89-6D, Iron,
 complexes with heteropolytungstates 7440-22-4D, Silver,
 complexes with heteropolytungstates 7440-45-1D, Cerium,
 complexes with heteropolytungstates 10108-73-3, Cerium

(III) nitrate 10141-05-6, Cobalt (II) nitrate 10421-48-4, Iron (III) nitrate 13093-17-9 13138-45-9, Nickel (II) nitrate 13770-18-8, Copper (II) perchlorate 34946-82-2, Copper (II) trifluoromethanesulfonate 38465-60-0, Copper (II) tetrafluoroborate

RL: CAT (Catalyst use); USES (Uses)
(catalytic compns. for removal of
contaminants such as warfare agents, and
materials incorporating these compns.)

L88 ANSWER 4 OF 45 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:783717 HCAPLUS
DOCUMENT NUMBER: 142:12991

TITLE: Tuning the Emission Color of
Europium-Containing Ionic Liquid-Crystalline
Phases

AUTHOR(S): Guillet, Erwann; Imbert, Daniel; Scopelliti,
Rosario; Buznli, Jean-Claude G.

CORPORATE SOURCE: Laboratory of Lanthanide Supramolecular
Chemistry, Swiss Federal Institute of
Technology, Lausanne, CH-1005, Switz.

SOURCE: Chemistry of Materials (2004), 16(21),
4063-4070

CODEN: CMATEX; ISSN: 0897-4756
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal
LANGUAGE: English

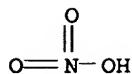
AB Luminescent liquid-crystalline phases are produced by introducing trivalent Eu salts, EuY₃ (Y = Cl, NO₃, ClO₄, CF₃SO₃), in room-temperature ionic liqs. (RTIL) derived from 1-alkyl-3-methylimidazolium, [C_n-mim]X (X = Cl, NO₃; n = 12-18). Four new ionic liqs. are synthesized (X = NO₃-, n = 12, 14, 16, 18) and characterized, and the structure of [C₁₂-mim]Cl is elucidated by x-ray diffraction. DSC and polarized light microscopy demonstrate that the liquid-crystalline properties of Eu-containing [C₁₂-mim]Cl are not much affected up to a salt concentration of 10 mol %, except for the mesogenic window which is enlarged. The RTIL displays a blue fluorescence and its intensity decreases substantially upon the introduction of Eu^{III} salts, pointing to energy transfer from the RTIL to the metal ion. A high-resolution luminescence study conducted both at room and low (10 K) temperature unambiguously demonstrates that the 5 mol % solns. contain a single solvated Eu^{III} species; when the counterion is Cl⁻, ClO₄⁻, or CF₃SO₃⁻, it appears to be a polychloro complex with a low symmetry derived from an idealized cubic symmetry. In the case of nitrate, a stronger anion-Eu^{III} interaction results in an emission spectrum in which the hypersensitive metal-centered red transition (5D₀ → 7F₂) predominates. As a matter of fact, the emission color of the liquid-crystalline phases can be easily turned from blue to red, depending on the excitation wavelength and the counterion Y, as demonstrated by the trichromatic coordinates of these materials.

IT 7761-88-8, Silver nitrate, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)
(tuning the emission color of europium-containing
1-alkyl-3-methylimidazolium nitrate ionic liquid-crystalline phases
prepared using)

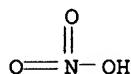
RN 7761-88-8 HCAPLUS

CN Nitric acid silver(1+) salt (8CI, 9CI) (CA INDEX NAME)



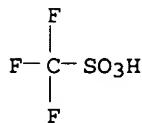
● Ag(I)

IT 10138-01-9, Europium nitrate (Eu(NO₃)₃) 52093-25-1
, Europium trifluoromethanesulfonate
RL: CPS (Chemical process); MOA (Modifier or additive use); PEP
(Physical, engineering or chemical process); PRP (Properties);
PROC (Process); USES (Uses)
(tuning the emission color of europium-containing ionic liquid-crystalline
phases)
RN 10138-01-9 HCPLUS
CN Nitric acid, europium(3+) salt (8CI, 9CI) (CA INDEX NAME)



● 1/3 Eu(III)

RN 52093-25-1 HCPLUS
CN Methanesulfonic acid, trifluoro-, europium(3+) salt (9CI) (CA
INDEX NAME)



● 1/3 Eu(III)

CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related
Properties)
Section cross-reference(s): 69, 75, 77
ST europium dopant imidazolium deriv salt fluorescence
tuning; thermo-optical fluorescence europium dopant
imidazolium deriv salt; energy transfer europium dopant
imidazolium deriv salt fluorescence tuning; NMR spectra europium
dopant imidazolium dodecyl methylimidazolium chloride; IR
spectra europium dopant imidazolium dodecyl
methylimidazolium chloride; mass spectra europium dopant
imidazolium dodecyl methylimidazolium chloride; hydrogen bond
length imidazolium dodecyl methylimidazolium chloride monohydrate;
structure imidazolium dodecyl methylimidazolium chloride
monohydrate; carbon bond length imidazolium dodecyl
methylimidazolium chloride monohydrate; explosion
europium perchlorate dopant imidazolium dodecyl
methylimidazolium nitrate; DSC europium dopant
imidazolium deriv ionic liq crystal; lifetime fluorescence
europium dopant imidazolium deriv ionic liq crystal; UV
visible spectra europium dopant imidazolium deriv liq

crystal; refractive index europium **dopant** imidazolium deriv ionic liq crystal; phase transition enthalpy temp mesogenic imidazolium deriv nitrate

IT **Explosion Safety**
(Eu perchlorate doping of 1-dodecyl-3-methylimidazolium nitrate liquid crystal in relation to)

IT **Doping**
(Eu salt doping of 1-dodecyl-3-methylimidazolium liquid crystals salts)

IT **7761-88-8, Silver nitrate, reactions**
RL: RCT (Reactant); RACT (Reactant or reagent)
(tuning the emission color of europium-containing 1-alkyl-3-methylimidazolium nitrate ionic liquid-crystalline phases prepared using)

IT 10025-76-0, Europium chloride (EuCl₃) 10138-01-9, Europium nitrate (Eu(NO₃)₃) 13537-22-9, Europium perchlorate (Eu(ClO₄)₃) 52093-25-1, Europium trifluoromethanesulfonate
RL: CPS (Chemical process); MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses)
(tuning the emission color of europium-containing ionic liquid-crystalline phases)

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L88 ANSWER 5 OF 45 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:740030 HCAPLUS

DOCUMENT NUMBER: 141:268649

TITLE: Organometallic precursor for forming metal film or pattern and method of forming metal film or pattern using the same

INVENTOR(S): Son, Hae Jung; Hwang, Euk Che; Lee, Sang Yoon; Hwang, Soon Taik; Yun, Byong Ki

PATENT ASSIGNEE(S): S. Korea

SOURCE: U.S. Pat. Appl. Publ., 12 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	

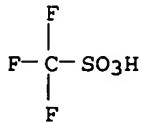
US 2004176623	A1	20040909	US 2003-676031	
				2003
				1002
PRIORITY APPLN. INFO.:			KR 2003-13419	A
				2003
				0304

OTHER SOURCE(S): MARPAT 141:268649

AB The object of this invention is to provide an organometallic precursor for forming a metal film or pattern and a method of forming the metal film or pattern using the same. More particularly, the present invention provides an organometallic precursor containing a hydrazine-based compound coordinated with a central metal thereof, and a method of forming a metal film or pattern using the same. Further, the present invention provides a composition containing an organometallic compound and a hydrazine-based compound, and a method of forming a metal film or pattern using the same. Addnl., the present invention is advantageous in that a pure metal film or pattern is

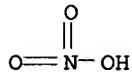
formed using the organometallic precursor or composition through a simple procedure without limiting atmospheric conditions at a low temperature, and the film or pattern thus formed has excellent conductivity and morphol. Therefore, the film is useful in an electronic device field including flexible displays and large-sized TFT-LCD.

IT 2923-28-6, Silver trifluoromethane sulfonate
 7761-88-8, Silver nitrate, reactions 14104-20-2,
 Silver tetrafluoroborate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of organometallic precursor for forming metal film for integrated circuit)
 RN 2923-28-6 HCPLUS
 CN Methanesulfonic acid, trifluoro-, silver(1+) salt (8CI, 9CI) (CA INDEX NAME)



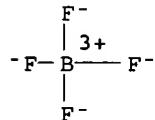
● Ag(I)

RN 7761-88-8 HCPLUS
 CN Nitric acid silver(1+) salt (8CI, 9CI) (CA INDEX NAME)



● Ag(I)

RN 14104-20-2 HCPLUS
 CN Borate(1-), tetrafluoro-, silver(1+) (8CI, 9CI) (CA INDEX NAME)



● Ag(I) +

IC ICM C07F009-00
 ICS C07F015-00
 INCL 556042000; 556137000
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 29, 76
 IT 613-94-5, Benzoichydrazide 870-46-2, tert-Butylcarbazate
 1068-57-1, Acetichydrazide 2923-28-6, Silver
 trifluoromethane sulfonate 2966-50-9, Silver trifluoroacetate
 7761-88-8, Silver nitrate, reactions 14104-20-2,

Silver tetrafluoroborate 26042-64-8, Silver hexafluoroantimonate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of organometallic precursor for forming metal film for
 integrated circuit)

L88 ANSWER 6 OF 45 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:59405 HCAPLUS

DOCUMENT NUMBER: 140:129836

TITLE: Non-toxic corrosion-protection
 pigments based on manganese

INVENTOR(S): Sturgill, Jeffrey A.; Phelps, Andrew Wells

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 159 pp.
 CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
US 2004011252	A1	20040122	US 2003-341435	2003 0113
WO 2004065305	A1	20040805	WO 2003-US38192	2003 1126

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES,
 FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
 KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,
 MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
 RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ,
 UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW,
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY,
 CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
 NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA,
 GN, GQ, GW, ML, MR, NE, SN, TD, TG

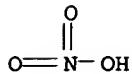
PRIORITY APPLN. INFO.: US 2003-341435 A
 2003
 0113

AB Corrosion-inhibiting pigments based on manganese are described that contain a trivalent or tetravalent manganese/valence stabilizer complex. An inorg. or organic material is used to stabilize the trivalent or tetravalent manganese ion to form a compound that is sparingly soluble, exhibits low solubility, or is insol. in water, depending upon the intended usage. Specific stabilizers are chosen to control the release rate of trivalent or tetravalent manganese during exposure to water and to tailor the compatibility of the powder when used as a pigment in a chosen binder system. Stabilizers may also modify the processing and handling characteristics of the formed powders. Manganese/valence stabilizer combinations are chosen based on the well-founded principles of manganese coordination chemical. Many manganese-valence stabilizer combinations are presented that can equal the performance of conventional hexavalent chromium or tetravalent lead systems. It is emphasized that this abstract is provided to comply with the rules requiring an abstract which will allow a searcher or other reader to quickly ascertain the subject matter of the tech. disclosure. It is submitted with the understanding that it will not be used to interpret or limit the scope or meaning of the claims.

IT 10377-66-9, Manganese nitrate 13446-10-1,

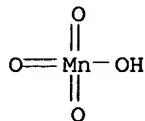
Ammonium permanganate 30744-82-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (non-toxic corrosion-protection pigments based on
 manganese)

RN 10377-66-9 HCPLUS
 CN Nitric acid, manganese(2+) salt (8CI, 9CI) (CA INDEX NAME)



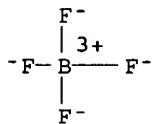
● 1/2 Mn(II)

RN 13446-10-1 HCPLUS
 CN Permanganic acid (HMnO₄), ammonium salt (8CI, 9CI) (CA INDEX
 NAME)



● NH₃

RN 30744-82-2 HCPLUS
 CN Borate(1-), tetrafluoro-, manganese(2+) (2:1) (9CI) (CA INDEX
 NAME)



● 1/2 Mn(II) 2+

IC ICM C01G045-00
 INCL 106401000; 423599000; 427327000; 427299000; 106479000; 106481000;
 106499000; 106455000; 106436000; 106450000
 CC 42-6 (Coatings, Inks, and Related Products)
 IT Coating materials
 (non-toxic corrosion-protection pigments based on
 manganese)
 IT Acrylic polymers, uses
 Alkyd resins
 Asphalt
 Chlorinated natural rubber
 Epoxy resins, uses
 Fluoropolymers, uses
 Neoprene rubber, uses
 Polyamides, uses
 Polyesters, uses

Polysiloxanes, uses
 Polyurethanes, uses
 Polyvinyl butyral
 Styrene-butadiene rubber, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (non-toxic corrosion-protection pigments based on manganese)

IT Corrosion inhibitors
 (pigments; non-toxic corrosion-protection pigments based on manganese)

IT 9010-98-4
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (neoprene rubber, non-toxic corrosion-protection pigments based on manganese)

IT 9002-88-4, Polyethylene
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (non-toxic corrosion-protection pigments based on manganese)

IT 1313-13-9, Manganese dioxide, reactions 1317-34-6, Manganese sesquioxide 1317-35-7, Manganomanganic oxide 2180-18-9, Manganese acetate 7722-64-7, Potassium permanganate 7773-01-5, Manganese chloride 7785-87-7, Manganese sulfate 7787-36-2, Barium permanganate 7790-33-2, Manganese iodide 10024-66-5, Manganese citrate 10101-50-5, Sodium permanganate 10118-76-0, Calcium permanganate 10124-54-6, Manganese phosphate 10377-62-5, Magnesium permanganate 10377-66-9, Manganese nitrate 11097-89-5, Manganese borate 11113-71-6, Manganese fluoride 11129-60-5, Manganese oxide 11129-61-6, Manganese silicate 12421-24-8, Aluminum manganese fluoride (AlMnF₅) 12626-88-9, Manganese hydroxide 13446-03-2, Manganese bromide 13446-10-1, Ammonium permanganate 13453-79-7, Lithium permanganate 13770-16-6, Manganese perchlorate 14284-89-0, Manganese acetylacetone 14446-13-0, Strontium permanganate 14998-36-8, Manganese tartrate 14998-38-0 15070-36-7 17375-29-0, Manganese benzoate 17375-37-0, Manganese carbonate 18820-29-6, Manganese sulfide 19664-95-0, Manganese butyrate 23414-72-4, Zinc permanganate 25327-03-1, Manganese thiocyanate 25808-75-7, Manganese fluosilicate 30744-82-2 30868-52-1 34109-78-9 50820-29-6, Manganese glycolate 51240-96-1 51877-53-3, Manganese lactate 52458-39-6, Manganese propionate 70268-41-6 76649-09-7, Aluminum permanganate 82022-29-5, Copper permanganate 89930-76-7 101229-81-6, Cobalt permanganate 104813-96-9, Manganese chlorate 110580-21-7, Manganese oxalate 141215-16-9 627895-23-2 648903-33-7 648903-34-8 648903-36-0 648903-38-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (non-toxic corrosion-protection pigments based on manganese)

IT 56367-81-8 188623-20-3 648903-41-7
 RL: TEM (Technical or engineered material use); USES (Uses)
 (non-toxic corrosion-protection pigments based on manganese)

IT 7439-96-5D, Manganese, complexes with valence stabilizers
 RL: TEM (Technical or engineered material use); USES (Uses)
 (pigment; non-toxic corrosion-protection pigments based on manganese)

IT 9003-55-8
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (styrene-butadiene rubber, non-toxic corrosion-protection pigments based on manganese)

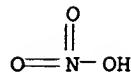
ACCESSION NUMBER: 2003:913046 HCPLUS
 DOCUMENT NUMBER: 139:392437
 TITLE: Materials for degrading contaminants ✓
 INVENTOR(S): Okun, Nelya; Hill, Craig L.
 PATENT ASSIGNEE(S): Emory University, USA
 SOURCE: PCT Int. Appl., 34 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 2003094977	A2	20031120	WO 2003-US14375	2003 0505
WO 2003094977	A3	20040708		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2005159307	A1	20050721	US 2003-512336	2003 0505
PRIORITY APPLN. INFO.:			US 2002-377740P	P 2002 0503
			WO 2003-US14375	W 2003 0505

AB Embodiments of the present invention includes compns., materials including the compns., methods of using the compns., and methods of degrading contaminants. The composition can include a polyoxometalate/cationic silica material. In addition, the compns. can be made of a polyoxometalate/cationic silica material, a copper (II) salt having a weakly bound anion, and a nitrate salts. Further, the compns. can be made of a polyoxometalate/cationic silica material, a copper (II) salt having a weakly bound anion, a compound selected from tetraethylammonium (TEA) nitrate, tetra-n-butylammonium (TBA) nitrate, and combinations thereof.

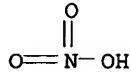
IT 3251-23-8, Cupric nitrate 10141-05-6, Cobalt nitrate 10421-48-4, Ferric nitrate 13138-45-9, Nickel nitrate 13770-18-8, Cupric perchlorate 34946-82-2, Cupric triflate 38465-60-0, Cupric tetrafluoroborate
 RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
 (materials for degrading contaminants)

RN 3251-23-8 HCPLUS
 CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



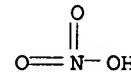
●1/2 Cu(II)

RN 10141-05-6 HCAPLUS
 CN Nitric acid, cobalt(2+) salt (8CI, 9CI) (CA INDEX NAME)



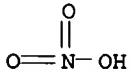
●1/2 Co(II)

RN 10421-48-4 HCAPLUS
 CN Nitric acid, iron(3+) salt (8CI, 9CI) (CA INDEX NAME)



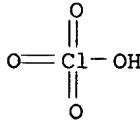
●1/3 Fe(III)

RN 13138-45-9 HCAPLUS
 CN Nitric acid, nickel(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Ni(II)

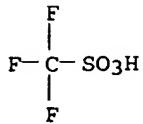
RN 13770-18-8 HCAPLUS
 CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

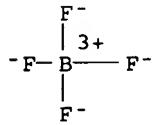
RN 34946-82-2 HCAPLUS
 CN Methanesulfonic acid, trifluoro-, copper(2+) salt (9CI) (CA INDEX

NAME)



●1/2 Cu(II)

RN 38465-60-0 HCAPLUS
 CN Borate(1-), tetrafluoro-, copper(2+) (2:1) (9CI) (CA INDEX NAME)



●1/2 Cu(II) 2+

IC ICM A61L
 CC 4-3 (Toxicology)
 ST chem warfare agent decontamination;
 oxometalate cationic silica chem warfare agent
 decontamination; copper salt oxometalate cationic silica
 chem warfare agent decontamination
 IT Infection
 (anthrax; materials for degrading contaminants)
 IT Biological warfare agents
 Chemical warfare agents
 Decontamination
 (materials for degrading contaminants)
 IT Heteropoly acids
 RL: NUU (Other use, unclassified); USES (Uses)
 (materials for degrading contaminants)
 IT Aldehydes, reactions
 Halogen compounds
 RL: RCT (Reactant); REM (Removal or disposal); PROC (Process);
 RACT (Reactant or reagent)
 (materials for degrading contaminants)
 IT Nitrates, reactions
 RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant
 or reagent); USES (Uses)
 (transition metal; materials for degrading contaminants
)
 IT 625455-59-6 625455-61-0 625830-47-9 625830-48-0
 625830-49-1 625830-52-6
 RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant
 or reagent); USES (Uses)
 (cationic catalyst support; materials for degrading
 contaminants)
 IT 173358-70-8, Bindzil CAT
 RL: NUU (Other use, unclassified); USES (Uses)
 (materials for degrading contaminants)
 IT 3251-23-8, Cupric nitrate 10141-05-6, Cobalt
 nitrate 10421-48-4, Ferric nitrate 12200-88-3

13138-45-9, Nickel nitrate 13770-18-8, Cupric perchlorate 34946-82-2, Cupric triflate 38465-60-0, Cupric tetrafluoroborate 73131-99-4 625830-46-8 625830-51-5
 RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
 (materials for degrading contaminants)

IT 59858-44-5P 134360-58-0P 194925-14-9P
 RL: NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (materials for degrading contaminants)

IT 1941-26-0, Tetraethylammonium nitrate 1941-27-1, Tetrabutylammonium nitrate
 RL: NUU (Other use, unclassified); REM (Removal or disposal); PROC (Process); USES (Uses)
 (materials for degrading contaminants)

IT 625830-54-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (materials for degrading contaminants)

IT 50-00-0, Formaldehyde, reactions 74-93-1, Methyl mercaptan, reactions 75-07-0, Acetaldehyde, reactions 75-18-3, Dimethyl sulfide 75-44-5, Phosgene 75-50-3, Trimethylamine, reactions 79-09-4, Propionic acid, reactions 100-42-5, Styrene, reactions 107-44-8, Sarin 107-92-6, n-Butyric acid, reactions 109-52-4, n-Valeric acid, reactions 110-01-0, Tetrahydrothiophene 110-81-6, Diethyl disulfide 110-86-1, Pyridine, reactions 352-93-2, Diethyl sulfide 503-74-2, Isovaleric acid 624-92-0, Dimethyl disulfide 630-08-0, Carbon monoxide, reactions 693-07-2, 2-Chloroethyl ethyl sulfide 7440-38-2D, Arsenic, compds. 7664-41-7, Ammonia, reactions 7704-34-9D, Sulfur, compds. 7727-37-9D, Nitrogen, compds. 7783-06-4, Hydrogen sulfide, reactions
 RL: RCT (Reactant); REM (Removal or disposal); PROC (Process); RACT (Reactant or reagent)
 (materials for degrading contaminants)

L88 ANSWER 8 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:236094 HCPLUS
 DOCUMENT NUMBER: 139:89622
 TITLE: Polyoxometalates on cationic silica Highly selective and efficient O₂/air-based oxidation of 2-chloroethyl ethyl sulfide at ambient temperature

AUTHOR(S): Okun, Nelya M.; Anderson, Travis M.; Hill, Craig L.

CORPORATE SOURCE: Department of Chemistry, Emory University, Atlanta, GA, 30322, USA

SOURCE: Journal of Molecular Catalysis A: Chemical (2003), 197(1-2), 283-290
 CODEN: JMCCF2; ISSN: 1381-1169

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Binary cupric nitrate and triflate systems catalyze the homogeneous air oxidation of the mustard (HD) simulant 2-chloroethyl Et sulfide (CEES) to the corresponding desired sulfoxide (CEESO) with effectively quant. selectivity in acetonitrile under ambient conditions. This activity is enhanced when cationic silica nanoparticles coated with the anionic multi-iron polyoxometalates (POMs) are also present. The POM-coated nanoparticles are prepared by treatment of aqueous suspensions of Bindzil CAT cationic silica nanoparticles (from Akzo Nobel) with aqueous solns. of the POMs, K₉[(FeIII(OH₂)₂)₃(PW9O₃₄)₂] (K94) or Na₁₂[(FeOH₂)₂Fe₂(P₂W₁₅O₅₆)₂] (Na125).

IT 3251-23-8, Cupric nitrate 34946-82-2, Cupric

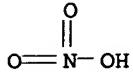
triflate

RL: CAT (Catalyst use); USES (Uses)

(polyoxometalates on cationic silica for highly selective and efficient aerobic oxidation of 2-chloroethyl Et sulfide at ambient temperature)

RN 3251-23-8 HCAPLUS

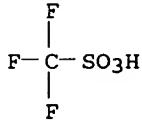
CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

RN 34946-82-2 HCAPLUS

CN Methanesulfonic acid, trifluoro-, copper(2+) salt (9CI) (CA INDEX NAME)



●1/2 Cu(II)

CC 60-4 (Waste Treatment and Disposal)

IT 3251-23-8, Cupric nitrate 34946-82-2, Cupric triflate

RL: CAT (Catalyst use); USES (Uses)

(polyoxometalates on cationic silica for highly selective and efficient aerobic oxidation of 2-chloroethyl Et sulfide at ambient temperature)

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L88 ANSWER 9 OF 45 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:42704 HCAPLUS

DOCUMENT NUMBER: 138:91678

TITLE: Wood preservative composition containing fungicidal and bactericidal metal compounds

INVENTOR(S): Las, Allan; Liu, Xianbin; Hoff, Ed

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 12 pp.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

-----	-----	-----	-----	-----
-------	-------	-------	-------	-------

US 2003010956	A1	20030116	US 2001-880597	
---------------	----	----------	----------------	--

2001

0613

PRIORITY APPLN. INFO.:

US 2001-880597

2001
0613

OTHER SOURCE(S): MARPAT 138:91678

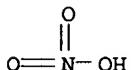
AB The present invention is directed to a wood preservative composition and a method of using the same. The wood preservative composition has an effective amount of a fungicidal and bactericidal metal compound, a triazole compound, and at least a first and/or a second quaternary ammonium compound. Alternatively, the wood preservative composition contains at least one addnl. agent, depending on the formulation. In one embodiment, the composition contains a mold inhibitor that is emulsified with the metal from the fungicidal and bactericidal metal compound in solution. In another embodiment, there is an effective amount of a boron compound. And in another embodiment, a combination of the boron compound and at least one amine compound.

IT 3251-23-8, Copper nitrate ($Cu(NO_3)_2$) 13770-18-8,
Copper perchlorate ($Cu(ClO_4)_2$)
RL: BUU (Biological use, unclassified); BIOL (Biological study);
USES (Uses)

(wood preservative composition containing fungicidal and bactericidal metal compds.)

RN 3251-23-8 HCPLUS

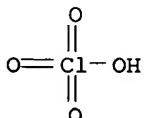
CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

RN 13770-18-8 HCPLUS

CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

IC ICM C09K003-00

INCL 252380000

CC 43-1 (Cellulose, Lignin, Paper, and Other Wood Products)
Section cross-reference(s): 5

IT Antibacterial agents
Fungicides
Insecticides
Wood preservatives
(wood preservative composition containing fungicidal and bactericidal metal compds.)

IT Borates
Quaternary ammonium compounds, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study);
USES (Uses)
(wood preservative composition containing fungicidal and

bactericidal metal compds.)

IT 288-88-0D, 1H-1,2,4-Triazole, compds. 1317-39-1, Cuprous oxide, biological studies 1333-22-8, Copper hydroxide sulfate (Cu₄(OH)₆(SO₄)) 3251-23-8, Copper nitrate (Cu(NO₃)₂) 7447-39-4, Copper chloride (CuCl₂), biological studies 7646-85-7, Zinc chloride (ZnCl₂), biological studies 7733-02-0, Zinc sulfate (ZnSO₄) 7758-98-7, Copper sulfate (CuSO₄), biological studies 7779-88-6, Zinc nitrate (Zn(NO₃)₂) 10043-35-3D, Boric acid, compds. 12027-98-4, Zinc hydroxide sulfate (Zn₄(OH)₆(SO₄)) 12069-69-1 12381-00-9, Zinc chloride hydroxide (Zn₂Cl(OH)₃) 13637-61-1, Zinc perchlorate (Zn(ClO₄)₂) 13770-18-8, Copper perchlorate (Cu(ClO₄)₂) 16872-11-0D, Fluoroboric acid, compds. 20427-58-1, Zinc hydroxide (Zn(OH)₂) 20427-59-2, Copper hydroxide (Cu(OH)₂) 60207-31-0, Azaconazole 60207-90-1, Propiconazole 79983-71-4, Hexaconazole 94361-06-5, Cyproconazole 107534-96-3, Tebuconazole 107893-14-1, Zinc oxide (ZnO) 119446-68-3, Difenoconazole 160578-43-8, Zinc carbonate hydroxide (Zn₂(CO₃)(OH)₂) 484051-73-2, Copper chloride hydroxide (Cu₂Cl(OH))

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(wood preservative composition containing fungicidal and bactericidal metal compds.)

L88 ANSWER 10 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:816764 HCPLUS

DOCUMENT NUMBER: 138:39603

TITLE: Addition Polymerization of Norbornene-Type Monomers. High Activity Cationic Allyl Palladium Catalysts

AUTHOR(S): Lipian, John; Mimna, Richard A.; Fondran, John C.; Yandulov, Dmitry; Shick, Robert A.; Goodall, Brian L.; Rhodes, Larry F.; Huffman, John C.

CORPORATE SOURCE: Promerus LLC, Brecksville, OH, 44141, USA

SOURCE: Macromolecules (2002), 35(24), 8969-8977

CODEN: MAMOBX; ISSN: 0024-9297

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

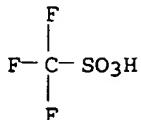
AB A family of high activity catalysts for the vinyl addition polymerization of norbornene-type monomers based on cationic η^3 -allylpalladium complexes coordinated by phosphine ligands has been discovered. The palladium complex $[(\eta^3\text{-allyl})\text{Pd}(\text{tricyclohexylphosphine})(\text{et her})][\text{B}(3,5\text{-}(\text{CF}_3)\text{2C}_6\text{H}_3)\text{4}]$ was found to copolymerize 5-butylnorbornene and 5-triethoxysilylnorbornene (95:5 molar ratio) with truly high activity and is capable of producing more than a metric ton of copolymer per mol Pd per h. Multicomponent catalyst systems based on the addition of salts of weakly coordinating anions (e.g., Na[B(3,5-(CF₃)₂C₆H₃)₄] or Li[B(C₆F₅)₄] · 2.5Et₂O) to $(\eta^3\text{-allyl})\text{Pd}(\text{X})(\text{PR}_3)$ (X = chloride, acetate, nitrate, trifluoroacetate, and triflate) in the presence of norbornene-type monomers were developed. NMR tube expts. confirm that Na[B(3,5-(CF₃)₂C₆H₃)₄] abstrs. the Cl ligand from the palladium complex forming the cationic complex in situ. Control expts. confirmed that a high activity polymerization system requires a palladium cation containing an allyl ligand, a neutral, two-electron-donor phosphine ligand, and a weakly coordinating counterion. Those complexes where X contained electron-withdrawing groups such as trifluoroacetate or triflate were the most active catalyst precursors. η^3 -Allylpalladium catalyst precursors with larger cone angle phosphine ligands yield lower mol. weight polymers. The poly(norbornene) mol. wts. can be further tuned by addition of α -olefin chain transfer agents to the reaction mixture. The catalyst systems were also found to polymerize norbornene-type monomers in aqueous media to high

conversion at very low catalyst loadings. The effect of mol. weight on thermomech. properties was explored.

IT 2923-28-6, Silver triflate 7761-88-8, Silver nitrate, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (in preparation of allylpalladium catalyst for polymerization of norbornene derivs.)

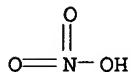
RN 2923-28-6 HCAPLUS

CN Methanesulfonic acid, trifluoro-, silver(1+) salt (8CI, 9CI) (CA INDEX NAME)



● Ag(I)

RN 7761-88-8 HCAPLUS
 CN Nitric acid silver(1+) salt (8CI, 9CI) (CA INDEX NAME)



● Ag(I)

CC 35-3 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 29

IT 563-63-3, Silver acetate 2622-14-2, Tricyclohexyl phosphine
 2923-28-6, Silver triflate 2966-50-9, Silver trifluoroacetate 7761-88-8, Silver nitrate, reactions
 79230-20-9, Tetrakis(bis(3,5-trifluoromethyl)phenyl) borate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (in preparation of allylpalladium catalyst for polymerization of norbornene derivs.)

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L88 ANSWER 11 OF 45 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:483798 HCAPLUS

DOCUMENT NUMBER: 137:144007

TITLE: Increasing the stability of silver(I) ions in inorganic-organic hybrid membranes for C₂H₄/C₂H₆ separation by using weakly self-coordinating anions of the silver salts

AUTHOR(S): Su, C.; Kuracka, K.; Yazawa, T.

CORPORATE SOURCE: Special Division of Green Life Technology,
 Ecoglass Research Group, National Institute of Advanced Industrial Science and Technology (AIST), Ikeda City, Osaka, 563-8577, Japan

SOURCE: Journal of Materials Science Letters (2002), 21(7), 525-527

CODEN: JMSLD5; ISSN: 0261-8028

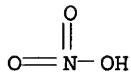
PUBLISHER: Kluwer Academic Publishers

DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Previously we reported a novel inorg.-organic membrane which can sep. C₂H₄/C₂H₆ at relatively low humidity. Here, we emphasize the stability of silver(I) ions, which would coordinate with the poly(N-vinylpyrrolidone) (PVP), a matrix mediate agent in the SiO₂-PVP hybrid membranes. It was found that the properties of the anions of the silver salts had significant influence on the coordination between silver salt and PVP. Only when the coordination between silver(I) ion and PVP formed, would the membrane be stable in air and had a high selectivity to C₂H₄ at low humidity which was clarified at high separation temperature. The coordination between silver salt and PVP and the hydrogen bonds between amide carbonyl and PVP and silanol groups formed a stable network, which implied that the organic, inorg. components dispersed at a mol. level. The inorg.-organic hybrid membrane was prepared from TEOS-Pr triethoxysilane sol by sol-gel method. PVP and silver salts (AgNO₃, AgClO₄ or AgBF₄) were added. The solns. were dip-coated on alumina porous supports and heat treated. The interactions between silver salt and PVP, PVP and HO-Si.tplbond. in the membranes were studied using a FTIR spectrophotometer. The single-gas permeances of the membranes for N₂, He, C₂H₆ and C₂H₄ were measured at 423K. It is obvious that the anion nature of the silver salts affects the complexation abilities of different silver salts with PVP, which was significant to the separation performance of the membranes. The complexation between AgBF₄ and PVP decreased the possibility for Ag⁺ ions to be reduced to metallic silver in air, which was easy to occur in membranes containing AgNO₃ and AgClO₄. The reduction of silver salt in the membrane was a fatal problem to the separation of C₂H₄/C₂H₆.

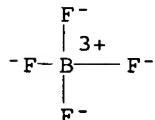
IT 7761-88-8, Nitric acid silver(1+) salt, processes
 14104-20-2, Silver fluoroborate AgBF₄
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
 (silver source; increasing the stability of Ag⁺ ions in inorg.-organic hybrid membranes for C₂H₄/C₂H₆ separation using weakly self-coordinating anions of Ag salts)

RN 7761-88-8 HCPLUS
 CN Nitric acid silver(1+) salt (8CI, 9CI) (CA INDEX NAME)



● Ag(I)

RN 14104-20-2 HCPLUS
 CN Borate(1-), tetrafluoro-, silver(1+) (8CI, 9CI) (CA INDEX NAME)



● Ag(I) +

CC 57-1 (Ceramics)
 Section cross-reference(s): 38, 47, 49

IT Permeability
 Sol-gel processing
 (increasing the stability of Ag⁺ ions in inorg.-organic hybrid membranes for C₂H₄/C₂H₆ separation using weakly self-coordinating anions of Ag salts)

IT Hybrid organic-inorganic materials
 (silica-PVP membranes; increasing the stability of Ag⁺ ions in inorg.-organic hybrid membranes for C₂H₄/C₂H₆ separation using weakly self-coordinating anions of Ag salts)

IT Membranes, nonbiological
 (silica-PVP; increasing the stability of Ag⁺ ions in inorg.-organic hybrid membranes for C₂H₄/C₂H₆ separation using weakly self-coordinating anions of Ag salts)

IT 9003-39-8, Poly(N-vinylpyrrolidone)
 RL: MOA (Modifier or additive use); USES (Uses)
 (matrix mediate agent; increasing the stability of Ag⁺ ions in inorg.-organic hybrid membranes for C₂H₄/C₂H₆ separation using weakly self-coordinating anions of Ag salts)

IT 292177-43-6P
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (membranes; increasing the stability of Ag⁺ ions in inorg.-organic hybrid membranes for C₂H₄/C₂H₆ separation using weakly self-coordinating anions of Ag salts)

IT 74-84-0, Ethane, processes 74-85-1, Ethene, processes
 RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
 (permeating gas mixture; increasing the stability of Ag⁺ ions in inorg.-organic hybrid membranes for C₂H₄/C₂H₆ separation using weakly self-coordinating anions of Ag salts)

IT 7440-59-7, Helium, processes 7727-37-9, Nitrogen, processes
 RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
 (permeating gas; increasing the stability of Ag⁺ ions in inorg.-organic hybrid membranes for C₂H₄/C₂H₆ separation using weakly self-coordinating anions of Ag salts)

IT 78-10-4, Teos 2550-02-9, Propyl triethoxysilane
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
 (precursor; increasing the stability of Ag⁺ ions in inorg.-organic hybrid membranes for C₂H₄/C₂H₆ separation using weakly self-coordinating anions of Ag salts)

IT 7761-88-8, Nitric acid silver(1+) salt, processes
 7783-93-9 14104-20-2, Silver fluoroborate AgBF₄
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
 (silver source; increasing the stability of Ag⁺ ions in inorg.-organic hybrid membranes for C₂H₄/C₂H₆ separation using weakly self-coordinating anions of Ag salts)

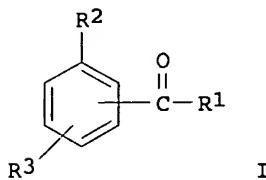
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L88 ANSWER 12 OF 45 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:237381 HCAPLUS
 DOCUMENT NUMBER: 136:262987
 TITLE: Process for the preparation of aryl ketones generating reduced amounts of toxic byproducts
 INVENTOR(S): Walker, Martin
 PATENT ASSIGNEE(S): College of the Holy Cross, USA
 SOURCE: U.S., 8 pp.
 CODEN: USXXAM

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6362375	B1	20020326	US 1999-454083	1999 1203
PRIORITY APPLN. INFO.:			US 1999-454083	1999 1203

OTHER SOURCE(S) : CASREACT 136:262987; MARPAT 136:262987
 GI



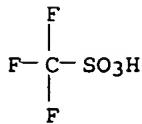
AB An efficient, cost-effective method useful for the production of aryl ketones I [wherein R1 = carboxylic acid residue; R2 = H, OH, alkyl, alkoxy, aryl(oxy), or halo; R3 = H, OH, alkyl, alkoxy, aryl(oxy), halo, or any combination thereof; or R2R3 = divalent chain forming a fused ring with the benzene] that minimizes the generation of **toxic** byproducts is disclosed. The method uses a metal triflate salt, preferably a rare metal triflate, to catalyze the reaction between the carboxylic acid substrate and the aromatic substrate. The H₂O generated by the reaction is collected and removed during the process. For example, praseodymium (III) trifluoromethanesulfonate, CF₃SO₃H, anisole, and p-toluic acid were refluxed together in toluene with azeotropic removal of the lower water layer for 22 h to afford 4-methoxy-4'-methylbenzophenone (60%).

IT 52093-27-3, Praseodymium (III) trifluoromethanesulfonate
 52093-30-8 54761-04-5 76089-77-5,
 Cerium(III) trifluoromethanesulfonate 139177-62-1,
 Dysprosium (III) trifluoromethanesulfonate 144026-79-9
 161337-67-3

RL: CAT (Catalyst use); USES (Uses)
 (catalyst; process for preparation of aryl ketones via modified Friedel-Crafts acylation catalyzed by rare metal triflates that generates reduced amts. of **toxic** byproducts)

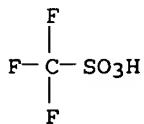
RN 52093-27-3 HCPLUS

CN Methanesulfonic acid, trifluoro-, praseodymium(3+) salt (9CI) (CA INDEX NAME)



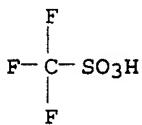
● 1/3 Pr(III)

RN 52093-30-8 HCPLUS
 CN Methanesulfonic acid, trifluoro-, yttrium(3+) salt (9CI) (CA
 INDEX NAME)



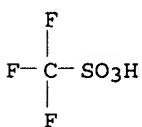
● 1/3 Y(III)

RN 54761-04-5 HCPLUS
 CN Methanesulfonic acid, trifluoro-, ytterbium(3+) salt (9CI) (CA
 INDEX NAME)



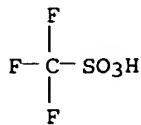
● 1/3 Yb(III)

RN 76089-77-5 HCPLUS
 CN Methanesulfonic acid, trifluoro-, cerium(3+) salt (9CI) (CA INDEX
 NAME)



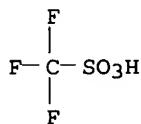
● 1/3 Ce(III)

RN 139177-62-1 HCPLUS
 CN Methanesulfonic acid, trifluoro-, dysprosium(3+) salt (9CI) (CA
 INDEX NAME)



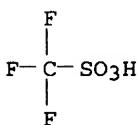
●1/3 Dy(III)

RN 144026-79-9 HCPLUS
 CN Methanesulfonic acid, trifluoro-, scandium(3+) salt (9CI) (CA
 INDEX NAME)



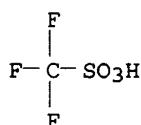
●1/3 Sc(III)

RN 161337-67-3 HCPLUS
 CN Methanesulfonic acid, trifluoro-, hafnium(4+) salt (9CI) (CA
 INDEX NAME)



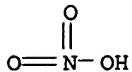
●1/4 Hf(IV)

IT 52093-26-2P, Lanthanum (III) Triflate
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP
 (Preparation); USES (Uses)
 (catalyst; process for preparation of aryl ketones via modified
 Friedel-Crafts acylation catalyzed by rare metal triflates that
 generates reduced amts. of toxic byproducts)
 RN 52093-26-2 HCPLUS
 CN Methanesulfonic acid, trifluoro-, lanthanum(3+) salt (9CI) (CA
 INDEX NAME)



●1/3 La(III)

IT 13823-29-5, Thorium (IV) nitrate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactant; process for preparation of aryl ketones via modified Friedel-Crafts acylation catalyzed by rare metal triflates that generates reduced amts. of **toxic** byproducts)
 RN 13823-29-5 HCAPLUS
 CN Nitric acid, thorium(4+) salt (8CI, 9CI) (CA INDEX NAME)



● 1/4 Th(IV)

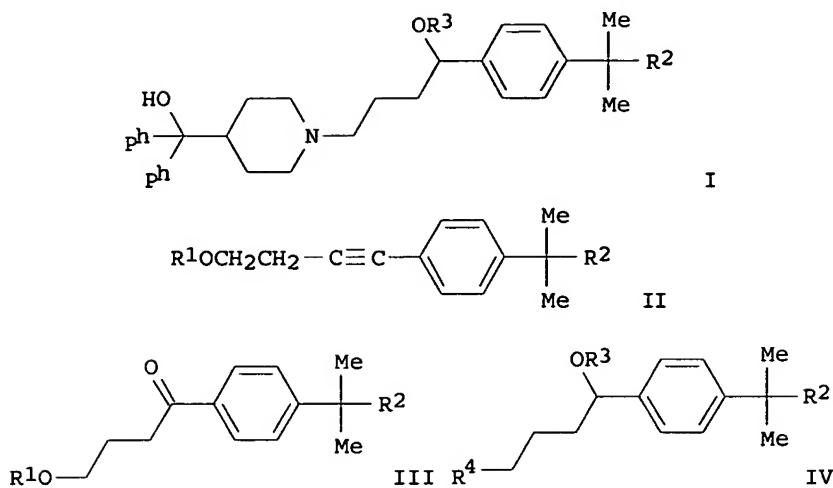
IC ICM C07C045-46
 INCL 568319000
 CC 25-16 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 ST aryl ketone prepn carboxylic acid Friedel Crafts acylation; rare metal triflate catalyst aryl ketone prep; **toxic** byproduct redn aryl ketone prep
 IT Friedel-Crafts reaction
 Green chemistry
 (process for preparation of aryl ketones via modified Friedel-Crafts acylation catalyzed by rare metal triflates that generates reduced amts. of **toxic** byproducts)
 IT Friedel-Crafts reaction catalysts
 (rare metal triflate; process for preparation of aryl ketones via modified Friedel-Crafts acylation catalyzed by rare metal triflates that generates reduced amts. of **toxic** byproducts)
 IT 52093-27-3, Praseodymium (III) trifluoromethanesulfonate
 52093-30-8 54761-04-5 76089-77-5, Cerium(III) trifluoromethanesulfonate 88189-03-1 128008-30-0
 139177-62-1, Dysprosium (III) trifluoromethanesulfonate 144026-79-9 161337-67-3
 RL: CAT (Catalyst use); USES (Uses)
 (catalyst; process for preparation of aryl ketones via modified Friedel-Crafts acylation catalyzed by rare metal triflates that generates reduced amts. of **toxic** byproducts)
 IT 27607-68-7P 52093-26-2P, Lanthanum (III) Triflate
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (catalyst; process for preparation of aryl ketones via modified Friedel-Crafts acylation catalyzed by rare metal triflates that generates reduced amts. of **toxic** byproducts)
 IT 90-96-0P, 4,4'-Dimethoxybenzophenone 611-97-2P,
 4,4'-Dimethylbenzophenone 23886-71-7P, 4-Methoxy-4'-methylbenzophenone 84836-32-8P
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
 (process for preparation of aryl ketones via modified Friedel-Crafts acylation catalyzed by rare metal triflates that generates reduced amts. of **toxic** byproducts)
 IT 88-09-5, 2-Ethylbutanoic acid 99-94-5, p-Toluic acid 100-66-3, Anisole, reactions 108-88-3, Toluene, reactions 587-26-8
 1493-13-6, Trifluoromethanesulfonic acid 13823-29-5, Thorium (IV) nitrate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactant; process for preparation of aryl ketones via modified Friedel-Crafts acylation catalyzed by rare metal triflates that generates reduced amts. of **toxic** byproducts)

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L88 ANSWER 13 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:107296 HCPLUS
 DOCUMENT NUMBER: 136:150996
 TITLE: New processes for the production of fexofenadine
 INVENTOR(S): Milla, Federico Junquera
 PATENT ASSIGNEE(S): Texcontor Etablissement, Liechtenstein
 SOURCE: PCT Int. Appl., 29 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
WO 2002010115	A1	20020207	WO 2001-IB1294	2001 0719
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1307423	A1	20030507	EP 2001-947748	2001 0719
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003166682	A1	20030904	US 2003-333974	2003 0319
PRIORITY APPLN. INFO.:		GB 2000-18691	A	2000 0728
		WO 2001-IB1294	W	2001 0719

OTHER SOURCE(S): CASREACT 136:150996; MARPAT 136:150996
 GI

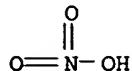


AB An improved process for the manufacture of fexofenadine is described, in which a compound of formula (I; wherein R2 represents CO₂H, CO₂-C₁-6 alkyl or cyano; and R3 represents hydrogen, mesylate, triflate, tosylate or carboxy-C₁-6-alkyl, or a salt thereof) is prepared by: (1) hydrating a compound of formula (II; wherein R1 represents hydrogen or carboxy-C₁-6-alkyl; and R2 is a hereinbefore defined), with a copper and/or silver compound in the presence of palladium or a compound thereof to yield a compound of formula (III; wherein R1 and R2 are as hereinbefore defined); (2) converting said compound of formula III into a compound of formula (IV; wherein R2 and R3 are as hereinbefore defined and R4 represents a halogen atom), and (3) reacting said compound of formula IV with azacyclonol. This process avoids the use of hazardous chems. and the need for laborious and time consuming regioisomer separation and gives fexofenadine in high yields and short reaction time. Thus, a solution of 4-(4-hydroxy-1-butynyl)- α,α -dimethylbenzeneacetic acid Me ester in aqueous methanol was treated with copper tetrafluoroborate and refluxed for 12 h to give Me 4-(4-hydroxy-1-oxobutyl)- α,α -dimethylphenylacetate (V). A CH₂Cl₂ solution of V was stirred with 48% aqueous HBr solution for 2 h to give Me 4-(4-bromo-1-oxobutyl)- α,α -dimethylphenylacetate (VI). A THF solution of VI was added dropwise to a cooled (-10°) solution of NaBH₄ in MeOH while maintaining the temperature at <5° to give, after 2 h, Me 4-(4-bromo-1-hydroxybutyl)- α,α -dimethylphenylacetate which was acetylated by acetyl chloride in the presence of 4-dimethylaminopyridine in pyridine at 0° for 1 h 40 min to give Me 4-(1-acetoxy-4-bromobutyl)- α,α -dimethylphenylacetate (VII). Crude VII, azacyclonol, KHCO₃, and NaI were heated at reflux in butanone for 3 h to give Me 4-[4-[4-(hydroxydiphenylmethyl)-1-piperidinyl]-1-acetoxybutyl]- α,α -dimethylphenylacetate which was heated at reflux with 10 M NaOH, water, and MeOH for 3.5 h and acidified to pH 5 with AcOH to give 4-[4-[4-(hydroxydiphenylmethyl)-1-piperidinyl]-1-hydroxybutyl]- α,α -dimethylphenylacetic acid (fexofenadine).

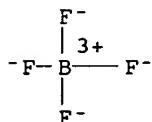
IT 3251-23-8 38465-60-0, Copper tetrafluoroborate
 RL: CAT (Catalyst use); USES (Uses)
 (processes for production of fexofenadine via hydration of
 p-(hydroxybutynyl)- α,α -dimethylbenzeneacetic acid
 Me ester, followed by bromination, acetylation, and amination
 with azacyclonol)

RN 3251-23-8 HCAPLUS

CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

RN 38465-60-0 HCPLUS
CN Borate(1-), tetrafluoro-, copper(2+) (2:1) (9CI) (CA INDEX NAME)

●1/2 Cu(II) 2+

IC ICM C07C069-738
 ICS C07C067-313; C07D211-22; A61K031-445; A61P037-08
 CC 25-16 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 Section cross-reference(s): 1
 IT 2923-28-6, Silver trifluoromethanesulfonate 3251-23-8
 7440-50-8D, Copper, Nafion exchanged with 7447-39-4, Copper chloride, uses 7758-98-7, Copper sulfate, uses 7761-88-8, Silver nitrate, uses 13965-03-2, Bistriphenylphosphine palladium dichloride 14104-20-2, Silver fluoroborate 14220-64-5, Bis(benzonitrile) palladium dichloride 14221-01-3, Tetrakis(triphenylphosphine)palladium(0) 26042-63-7, Silver hexafluorophosphate 38465-60-0, Copper tetrafluoroborate 42152-44-3, Copper trifluoromethanesulfonate
 RL: CAT (Catalyst use); USES (Uses)
 (processes for production of fexofenadine via hydration of p-(hydroxybutynyl)- α , α -dimethylbenzeneacetic acid
 Me ester, followed by bromination, acetylation, and amination with azacyclonol)
 REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

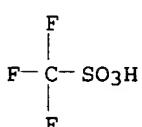
L88 ANSWER 14 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:890533 HCPLUS
 DOCUMENT NUMBER: 136:118934
 TITLE: Wide-Angle X-ray Scattering Studies on the Structural Properties of Polymer Electrolytes Containing Silver Ions
 AUTHOR(S): Choi, Sangwook; Kim, Jong Hak; Kang, Yong Soo
 CORPORATE SOURCE: Center for Facilitated Transport Membranes, Korea Institute of Science Technology, Seoul, 130-650, S. Korea
 SOURCE: Macromolecules (2001), 34(26), 9087-9092
 CODEN: MAMOBX; ISSN: 0024-9297
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Wide-angle X-ray scattering (WAXS) has been used to study the structural properties of polymer electrolytes containing silver ions. The WAXS spectra of pure poly(2-ethyl-2-oxazoline) (POZ) and poly(vinylpyrrolidone) (PVP) showed two broad amorphous peaks. The first of these peaks was assigned to the interchain distance, and the second peak was assigned to the distance between the pendant groups of the polymer chains. When silver salts such as AgBF₄, AgCF₃SO₃, or AgClO₄ were introduced into the polymer matrixes, their silver ions coordinated with the carbonyl oxygens on the pendant groups to form polymer/silver salt complexes. In the case of the PVP/silver salt complexes, the first peak shifted to lower angle and became narrower with increasing silver concentration, indicative of an increase in the interchain distance and ordering. In contrast, the position of the second peak remained almost constant. For the POZ/silver salt complexes, however, the positions of both peaks shifted to higher scattering angle with increasing silver concentration until the mole ratio of carbonyl oxygen to silver reached about 3:1. Further increase of the concentration caused the first peak to shift to lower angle while the second peak remained almost constant, which is similar to the behavior of the PVP/Ag salt complexes. The difference in the behavior of the PVP/Ag and POZ/Ag salt complexes may arise from different strengths of the transient cross-links formed by silver cations with the pendant groups of POZ and PVP. The Bragg d spacing results calculated from the second peak indicate that the silver ions coordinate more strongly with the pendant groups in the POZ/AgClO₄ complex than in the POZ/AgCF₃SO₃ and POZ/AgBF₄ complexes. It is worth noting that the Bragg d spacings for the POZ/silver and PVP/silver salt complexes were very different at low silver concns. but approach almost the same value at high silver concns. (e.g., at a mole ratio of [C=O] : [Ag] = 1:1). These findings are consistent with our previous results on facilitated olefin transport and glass transition temperature behavior in silver polymer electrolyte membranes. We therefore conclude that the facilitated olefin transport and glass transition temperature behavior in polymer electrolytes are strongly related to the structural change that occurs upon coordination of silver cations with the carbonyl oxygens of the polymeric chains.

IT 2923-28-6, Silver triflate 7761-88-8, Silver nitrate, uses 14104-20-2, Silver tetrafluoroborate
 RL: MOA (Modifier or additive use); USES (Uses)
 (polyethyloxazoline, polyvinylpyrrolidone complexes; structural studies of polymer electrolytes containing silver ions)

RN 2923-28-6 HCAPLUS

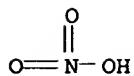
CN Methanesulfonic acid, trifluoro-, silver(1+) salt (8CI, 9CI) (CA INDEX NAME)



● Ag(I)

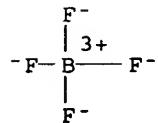
RN 7761-88-8 HCAPLUS

CN Nitric acid silver(1+) salt (8CI, 9CI) (CA INDEX NAME)



● Ag(I)

RN 14104-20-2 HCPLUS
 CN Borate(1-), tetrafluoro-, silver(1+) (8CI, 9CI) (CA INDEX NAME)



● Ag(I) +

CC 36-2 (Physical Properties of Synthetic High Polymers)
 Section cross-reference(s): 73
 IT Permeation
 (of mixed gases on polymer electrolytes containing silver ions)
 IT 2923-28-6, Silver triflate 7761-88-8, Silver nitrate, uses 7783-93-9, Silver perchlorate 14104-20-2, Silver tetrafluoroborate
 RL: MOA (Modifier or additive use); USES (Uses)
 (polyethyloxazoline, polyvinylpyrrolidone complexes; structural studies of polymer electrolytes containing silver ions)
 REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

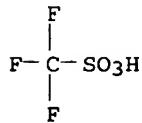
L88 ANSWER 15 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:614734 HCPLUS
 DOCUMENT NUMBER: 135:323121
 TITLE: Formation of Silver Nanoparticles Induced by Poly(2,6-dimethyl-1,4-phenylene oxide)
 AUTHOR(S): Kim, Hoon Sik; Ryu, Jae Hee; Jose, Binoy; Lee, Byung Gwon; Ahn, Byoung Sung; Kang, Yong Soo
 CORPORATE SOURCE: CFC Alternatives Research Center and Center for Facilitated Transport Membrane, Korea Institute of Science and Technology, Seongbukgu, Seoul, 136-791, S. Korea
 SOURCE: Langmuir (2001), 17(19), 5817-5820
 CODEN: LANGD5; ISSN: 0743-7463
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Colloidal Ag nanoparticles were easily obtained by reacting AgX (X = BF₄, PF₆, SbF₆, SO₃CF₃, ClO₄, NO₃) with poly(2,6-dimethyl-1,4-phenylene oxide) (PPO) in a mixed solvent system of CHCl₃ and MeOH in the absence of UV irradiation. Rapid formation of colloidal Ag nanoparticles was also observed when a Ag salt was added to a CHCl₃ solution containing PPO and 1-hexene. UV-visible spectra and transmission electron micrographs show that the colloidal Ag particles formed from these methods are nanosized, stable, and uniformly distributed. PPO is oxidized in the presence of a Ag

salt to give quinone and quinone derivs. which were analyzed by GC-Mass. A plausible mechanism for the formation of Ag nanoparticles is proposed from the redox reaction of PPO in the presence of a Ag salt.

IT 2923-28-6 7761-88-8, Silver nitrate (AgNO_3),
 processes 14104-20-2, Silver fluoroborate (AgBF_4)
 RL: PEP (Physical, engineering or chemical process); RCT
 (Reactant); PROC (Process); RACT (Reactant or reagent)
 (formation of silver nanoparticles obtained by reacting
 poly(dimethylphenylene oxide) with)

RN 2923-28-6 HCPLUS

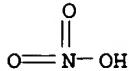
CN Methanesulfonic acid, trifluoro-, silver(1+) salt (8CI, 9CI) (CA INDEX NAME)



● Ag(I)

RN 7761-88-8 HCPLUS

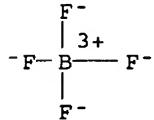
CN Nitric acid silver(1+) salt (8CI, 9CI) (CA INDEX NAME)



● Ag(I)

RN 14104-20-2 HCPLUS

CN Borate(1-), tetrafluoro-, silver(1+) (8CI, 9CI) (CA INDEX NAME)



● Ag(I) +

CC 66-4 (Surface Chemistry and Colloids)
 Section cross-reference(s): 22, 78

IT IR spectra
 (mid-IR; of pure polydimethylphenylene oxide (PPO)
 and PPO-AgBF₄ films prepared from PPO-AgBF₄ solution containing hexene)

IT 2923-28-6 7761-88-8, Silver nitrate (AgNO_3),
 processes 7783-93-9, Silver perchlorate (AgClO_4)
 14104-20-2, Silver fluoroborate (AgBF_4) 26042-63-7,
 Silver hexafluorophosphate (AgPF_6) 26042-64-8, Silver
 hexafluoroantimonate (AgSbF_6)
 RL: PEP (Physical, engineering or chemical process); RCT

(Reactant); PROC (Process); RACT (Reactant or reagent)
 (formation of silver nanoparticles obtained by reacting
 poly(dimethylphenylene oxide) with)

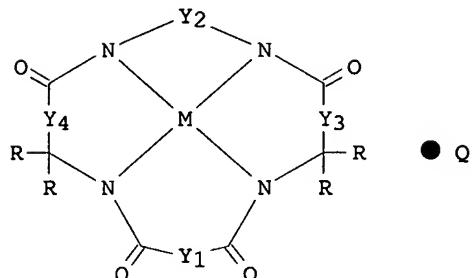
REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L88 ANSWER 16 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2000:754402 HCPLUS
 DOCUMENT NUMBER: 133:339515
 TITLE: Metal ligand containing bleaching
 compositions
 INVENTOR(S): Collins, Terrence J.; Horwitz, Colin P.
 PATENT ASSIGNEE(S): Carnegie Mellon University, USA
 SOURCE: U.S., 29 pp., Cont.-in-part of U.S. 5,853,428.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 5
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6136223	A	20001024	US 1998-75598	1998 0511
US 5876625	A	19990302	US 1996-684670	1996 0722
US 5853428	A	19981229	US 1997-804776	1997 0224
CA 2332134	AA	19991118	CA 1999-2332134	1999 0510
CA 2332134	C	20050920		
WO 9958634	A1	19991118	WO 1999-US10157	1999 0510
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9939778	A1	19991129	AU 1999-39778	1999 0510
AU 763682	B2	20030731		
BR 9910409	A	20010109	BR 1999-10409	1999 0510
EP 1078033	A1	20010228	EP 1999-922881	1999 0510
EP 1078033	B1	20050727		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002514693	T2	20020521	JP 2000-548427	1999 0510
NZ 507826	A	20030829	NZ 1999-507826	

RU 2234528	C2	20040820	RU 2000-128026	1999 0510
AT 300599	E	20050815	AT 1999-922881	1999 0510
US 6241779	B1	20010605	US 2000-564419	1999 0510
NO 2000005505	A	20010109	NO 2000-5505	2000 0504
PRIORITY APPLN. INFO.:				2000 1101
US 1996-684670				A2 1996 0722
US 1997-804776				A2 1997 0224
US 1998-75598				A 1998 0511
WO 1999-US10157				W 1999 0510

OTHER SOURCE(S): MARPAT 133:339515
GI



AB The invention provides a novel composition and method for removing or reducing levels of recalcitrant constituents from an effluent, such as lignin chromophores, absorbable or adsorbable organic halogens (AOX species), such as chlorinated phenols, dioxins, dibenzofurans, biphenyls, and high mol. weight material produced in the pulp and paper bleaching operations which includes using a composition comprised of (a) an amount of a source of an oxidant effective for oxidizing and thereby reducing the levels of such constituents and (b) an oxidatively stable oxidant activator having the structure I wherein Y1, Y3 and Y4 each represent a bridging group having zero, one, two or three carbon containing nodes for substitution, and Y2 is a bridging group having at least one carbon containing node for substitution, each said node containing a C(R), C(R1)(R2), or a C(R)2 unit and each R substituent is the same or different from the remaining R substituents; M is a transition metal with oxidation states of I, II, III, IV, V, VI, VII or VIII or selected from Groups 3, 4, 5, 6, 7, 8, 9, 10 and 11 of

the Periodic Table of the Elements; and Q is any counterion which would balance the charge of the compound on a stoichiometric basis.

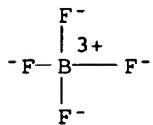
IT 14104-20-2, Silver tetrafluoroborate 15078-94-1,

Ammonium cerium nitrate

RL: RCT (Reactant); RACT (Reactant or reagent)
(metal ligand containing bleaching compns. and application to pulp and paper wastewater treatment)

RN 14104-20-2 HCPLUS

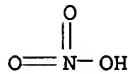
CN Borate(1-), tetrafluoro-, silver(1+) (8CI, 9CI) (CA INDEX NAME)



● Ag(I) +

RN 15078-94-1 HCPLUS

CN Nitric acid, ammonium cerium salt (8CI, 9CI) (CA INDEX NAME)



● x Ce(x)

● x NH₃

IC ICM C01B015-00

ICS C01B015-055; C11D003-39

INCL 252186330

CC 60-2 (Waste Treatment and Disposal)

Section cross-reference(s): 41, 43

ST bleaching compn metal ligand paper manuf;
wastewater paper manuf bleaching

IT Wastewater treatment

(decolorization; metal ligand containing bleaching
compns. and application to pulp and paper wastewater
treatment)

IT Macroyclic compounds

Macroyclic compounds

RL: PEP (Physical, engineering or chemical process); RCT
(Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC
(Process); RACT (Reactant or reagent)
(ligands, tetraamido metal ligand complexes; as
bleaching compns. and application to pulp and
paper wastewater treatment)

IT Ligands

Ligands

RL: PEP (Physical, engineering or chemical process); RCT
(Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC
(Process); RACT (Reactant or reagent)
(macrocyclic, tetraamido metal ligand complexes; as

bleaching compns. and application to pulp and paper wastewater treatment)

IT Cellulose pulp
Paper
(metal ligand containing bleaching compns. and application to pulp and paper wastewater treatment)

IT Chlorides, processes
RL: PEP (Physical, engineering or chemical process); REM (Removal or disposal); PROC (Process)
(organic; metal ligand containing bleaching compns. and application to pulp and paper wastewater treatment)

IT Wastewater treatment
(oxidation; metal ligand containing bleaching compns. and application to pulp and paper wastewater treatment)

IT Chromophores
(removal from pulp and paper wastewater; metal ligand containing bleaching compns. and application to pulp and paper wastewater treatment)

IT Macrocyclic compounds
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(tetraamido metal ligand complexes; as bleaching compns. and application to pulp and paper wastewater treatment)

IT 2001-45-8P, Tetraphenylphosphonium chloride 136668-03-6P
136668-04-7P 136668-05-8P 202401-72-7P 202401-74-9P
202401-76-1P 202401-77-2P 202401-79-4P 202401-80-7P
250670-72-5P 303765-47-1P 303765-48-2P
RL: IMF (Industrial manufacture); PREP (Preparation)
(metal ligand containing bleaching compns. and application to pulp and paper wastewater treatment)

IT 202401-89-6P 303174-62-1P
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); RCT (Reactant); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(metal ligand containing bleaching compns. and application to pulp and paper wastewater treatment)

IT 303765-49-3P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(metal ligand containing bleaching compns. and application to pulp and paper wastewater treatment)

IT 22042-96-2, Dequest 2066
RL: NUU (Other use, unclassified); USES (Uses)
(metal ligand containing bleaching compns. and application to pulp and paper wastewater treatment)

IT 95-54-5, 1,2-Diaminobenzene, reactions 143-33-9, Sodium cyanide
479-27-6, 1,8-Naphthalenediamine 594-19-4, tert-Butyllithium
2756-85-6, 1-Amino-1-cyclohexane carboxylic acid 3171-45-7,
1,2-Diamino-4,5-dimethylbenzene 5348-42-5, 1,2-Diamino-4,5-dichlorobenzene 5659-93-8, Dimethyl malonyl dichloride
14104-20-2, Silver tetrafluoroborate 15078-94-1,
Ammonium cerium nitrate 27841-33-4, 1,2-Diamino-4,5-dimethoxybenzene 202401-85-2 202401-87-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(metal ligand containing bleaching compns. and application to pulp and paper wastewater treatment)

IT 88-06-2, 2,4,6-Trichlorophenol
RL: REM (Removal or disposal); PROC (Process)
(metal ligand containing bleaching compns. and application to pulp and paper wastewater treatment)

IT 7722-84-1, Hydrogen peroxide, reactions
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(oxidizing agent; metal ligand containing bleaching

compns. and application to pulp and paper wastewater treatment)

IT 62-57-7, α -Methyl alanine
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with diethyl-, and dimethylmalonyl dichloride; metal ligand containing bleaching compns. and application to pulp and paper wastewater treatment)

IT 54505-72-5, Diethyl malonyl dichloride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with α -methylalanine; metal ligand containing bleaching compns. and application to pulp and paper wastewater treatment)

IT 2768-90-3, Pinacyanol chloride
 RL: PEP (Physical, engineering or chemical process); REM (Removal or disposal); PROC (Process)
 (removal from pulp/paper wastewater; metal ligand containing bleaching compns. and application to pulp and paper wastewater treatment)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L88 ANSWER 17 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:740958 HCPLUS
 DOCUMENT NUMBER: 133:277509
 TITLE: Stable aqueous antimicrobial compositions containing 3-isothiazolone
 INVENTOR(S): El A'mma, Beverly Jean
 PATENT ASSIGNEE(S): Rohm and Haas Company, USA
 SOURCE: Eur. Pat. Appl., 12 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1044609	A1	20001018	EP 2000-302826	2000 0404
EP 1044609	B1	20021120	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO	
CN 1270763	A	20001025	CN 2000-106553	2000 0412
US 6211213	B1	20010403	US 2000-547407	2000 0412
JP 2000327506	A2	20001128	JP 2000-113502	2000 0414
BR 2000001621	A	20010403	BR 2000-1621	2000 0414
PRIORITY APPLN. INFO.:			US 1999-129813P	P 1999 0416

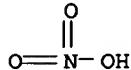
AB Aqueous antimicrobial compns. containing a 3-isothiazolone compound are stabilized with organic oxidants and copper salts.

IT 3251-23-8 13770-18-8, Copper(2+) perchlorate
 RL: MOA (Modifier or additive use); USES (Uses)

(cupric ion source as stabilizer in aqueous antimicrobial
compns. containing 3-isothiazolone)

RN 3251-23-8 HCPLUS

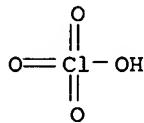
CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

RN 13770-18-8 HCPLUS

CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

IC ICM A01N043-80
ICS A01N025-22

CC 5-2 (Agrochemical Bioregulators)

IT Antimicrobial agents
Pesticide formulations
(stable aqueous antimicrobial compns. containing
3-isothiazolone)

IT 3251-23-8 7447-39-4, Copper(2+) chloride, uses
7758-98-7, Copper sulfate, uses 7789-45-9, Copper (II) bromide
13770-18-8, Copper(2+) perchlorate 14984-71-5
26506-47-8, Copper chlorate

RL: MOA (Modifier or additive use); USES (Uses)
(cupric ion source as stabilizer in aqueous antimicrobial
compns. containing 3-isothiazolone)

IT 65-85-0, Benzoic acid, uses 75-91-2, tert-Butyl hydroperoxide
79-21-0, Peracetic acid 94-36-0, Benzoylperoxide, uses
107-71-1, tert-Butyl peroxyacetate 110-05-4 123-23-9, Succinic
acid peroxide 124-43-6 614-45-9, tert-Butyl peroxybenzoate
937-14-4, 3-Chloroperoxybenzoic acid 1203-40-3, Peroxyphthalic
acid 1338-23-4, 2-Butanone peroxide 3025-88-5,
2,5-Dihydroperoxy-2,5-dimethylhexane 5457-66-9, tert-Butyl
octanoate

RL: MOA (Modifier or additive use); USES (Uses)
(organic oxidant as stabilizer in aqueous antimicrobial compns
containing 3-isothiazolone)

IT 1003-07-2D, 3-Isothiazolone, derivs 2682-20-4,
2-Methyl-3-Isothiazolone 2682-21-5, 2-Ethyl-3-Isothiazolone
26172-55-4 26542-23-4, 4,5-DiChloro-2-methyl-3-Isothiazolone
33344-74-0, 5-Chloro-2-ethyl-3-Isothiazolone 55965-84-9
RL: BUU (Biological use, unclassified); BIOL (Biological study);
USES (Uses)

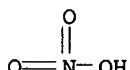
(stable aqueous antimicrobial compns. containing)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L88 ANSWER 18 OF 45 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1999:779125 HCAPLUS
 DOCUMENT NUMBER: 132:15648
 TITLE: Composition and method for reducing
 diarrhea in poultry and swine
 INVENTOR(S): Brinton, Gene; Mourning, Jackie Brinton
 PATENT ASSIGNEE(S): Brinton Veterinary Supply, Inc., USA
 SOURCE: U.S., 8 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

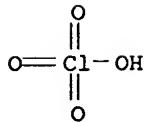
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5997911	A	19991207	US 1996-703638	1996 0827
PRIORITY APPLN. INFO.:				US 1996-703638 1996 0827

AB A composition and method for reducing the incidence of Poult Enteritis Mortality Syndrome in young turkeys, flushing in mature turkeys, and scours in swine. The composition of the present invention comprises, in combination, a simple copper (II) salt, a hydroxycarboxylic acid, and a buffering agent solubilized within the drinking water of turkeys and/or swine in an antidiarrheal effective dosage as preventative maintenance in avoiding the diarrheal conditions associated with PEMS, flushing, and scours. In a preferred embodiment, the simple copper (II) salt comprises copper sulfate pentahydrate, the hydroxycarboxylic acid comprises anhydrous citric acid, and the buffering agent comprises ammonium carbonate.
 IT 3251-23-8, Cupric nitrate 13770-18-8, Cupric perchlorate 34946-82-2, Cupric trifluoromethanesulfonate 38465-60-0, Cupric tetrafluoroborate
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (copper salt compns. for reducing diarrhea in poultry and swine)
 RN 3251-23-8 HCAPLUS
 CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



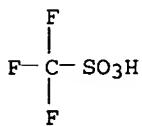
●1/2 Cu(II)

RN 13770-18-8 HCAPLUS
 CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



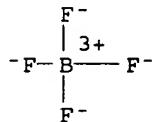
●1/2 Cu(II)

RN 34946-82-2 HCPLUS
 CN Methanesulfonic acid, trifluoro-, copper(2+) salt (9CI) (CA INDEX NAME)



●1/2 Cu(II)

RN 38465-60-0 HCPLUS
 CN Borate(1-), tetrafluoro-, copper(2+) (2:1) (9CI) (CA INDEX NAME)



●1/2 Cu(II) 2+

IC ICM A61K031-30
 ICS A61K031-28; A61K031-19; A61K033-34
 INCL 424632000
 CC 63-6 (Pharmaceuticals)
 IT Antidiarrheals
 Poultry
 Swine
 (copper salt compns. for reducing diarrhea in poultry
 and swine)
 IT Carboxylic acids, biological studies
 RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (hydroxy; copper salt compns. for reducing diarrhea
 in poultry and swine)
 IT Drugs
 (veterinary; copper salt compns. for reducing
 diarrhea in poultry and swine)
 IT 506-87-6, Ammonium carbonate
 RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (buffer; copper salt compns. for reducing diarrhea in
 poultry and swine)

IT 50-21-5, Lactic acid, biological studies 50-81-7, L-Ascorbic acid, biological studies 77-92-9, biological studies 87-69-4, Tartaric acid, biological studies 526-95-4, Gluconic acid 3562-74-1, Homocitric acid
 RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (copper salt compns. for reducing diarrhea in poultry and swine)

IT 142-71-2, Cupric acetate 527-09-3, Cupric gluconate 815-82-7, Cupric tartrate, biological studies 866-82-0, Cupric citrate 1184-54-9, Cupric methoxide 1184-64-1, Cupric carbonate 3251-23-8, Cupric nitrate 7440-50-8D, Copper, salts, biological studies 7758-99-8, Cupric sulfate pentahydrate 11112-08-6, Cupric diisopropyl salicylate 12771-00-5, Copper tungsten oxide 13395-16-9, Cupric acetylacetone 13767-34-5, Cupric molybdate 13770-18-8, Cupric perchlorate 15192-76-4, Cupric thiocyanate 16039-52-4, Cupric lactate 18911-01-8, Copper glycolate 34946-82-2, Cupric trifluoromethanesulfonate 38465-60-0, Cupric tetrafluoroborate 819869-34-6
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (copper salt compns. for reducing diarrhea in poultry and swine)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L88 ANSWER 19 OF 45 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:279680 HCAPLUS
 DOCUMENT NUMBER: 130:292815
 TITLE: Stable isothiazolone derivative microbicide formulation
 INVENTOR(S): Mattox, John Robert
 PATENT ASSIGNEE(S): Rohm and Haas Company, USA
 SOURCE: Eur. Pat. Appl., 8 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 910952	A1	19990428	EP 1998-201682	1998 0520
EP 910952	B1	20021030		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
US 5955486	A	19990921	US 1998-23447	1998 0213
AU 9864890	A1	19990520	AU 1998-64890	1998 0512
ES 2186090	T3	20030501	ES 1998-201682	1998 0520
TW 381962	B	20000211	TW 1998-87108142	1998 0526
BR 9801714	A	20000425	BR 1998-1714	1998 0527
CN 1215556	A	19990505	CN 1998-109796	

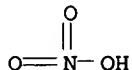
CN 1106150	B 20030423	1998
JP 11158014	A2 19990615	0611
JP 1998-215044		
1998		
0730		
PRIORITY APPLN. INFO.:		US 1997-63351P
P		
1997		
1028		

AB Stable microbical compns. containing a 3-isothiazolone compound, chlorate or perchlorate salts, copper salts and water are disclosed. In the presence of small amts. of Cu²⁺, chlorate or perchlorate salts stabilize the 3-isothiazolone derivative and inhibit precipitation. Applications include cooling towers, boilers, wastewater treatment, mineral slurries, paints, metal-working fluids, etc.

IT 3251-23-8, Copper(II) nitrate 13770-18-8,
Copper(II) perchlorate
RL: MOA (Modifier or additive use); USES (Uses)
(stabilizers in isothiazolone derivative microbicide formulations)

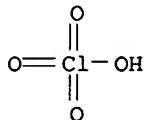
RN 3251-23-8 HCPLUS

CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

RN 13770-18-8 HCPLUS
CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)

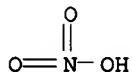


●1/2 Cu(II)

IC ICM A01N043-80
ICS A01N025-22
ICI A01N043-80, A01N059-20, A01N059-00
CC 5-2 (Agrochemical Bioregulators)
IT 142-71-2, Copper(II) acetate 3251-23-8, Copper(II) nitrate 3811-04-9, Potassium chlorate 7447-39-4, Copper(II) chloride, uses 7601-89-0, Sodium perchlorate 7758-98-7, Copper(II) sulfate, uses 7775-09-9, Sodium chlorate 7778-74-7, Potassium perchlorate 7789-45-9, Copper(II) bromide 13770-18-8, Copper(II) perchlorate 14721-21-2 14984-71-5 15158-11-9D, Copper(II), salts, uses
RL: MOA (Modifier or additive use); USES (Uses)
(stabilizers in isothiazolone derivative microbicide formulations)

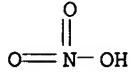
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 1999:210877 HCPLUS
 DOCUMENT NUMBER: 130:343577
 TITLE: Conductance and thermodynamic study of the interaction of some transition and heavy metals with phenyl-aza-15-crown-5 (PhA15C5) in different binary acetonitrile-water solvent mixtures
 AUTHOR(S): Marji, Deeb; Fraihat, Safwan
 CORPORATE SOURCE: Chemistry Department, Yarmouk University, Irbid, Jordan
 SOURCE: Journal of Inclusion Phenomena and Macrocyclic Chemistry (1999), 33(1), 99-108
 CODEN: JIPCF5
 PUBLISHER: Kluwer Academic Publishers
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The molar conductance of solns. containing $\text{Fe}(\text{ClO}_4)_3$, $\text{Cu}(\text{ClO}_4)_2$, $\text{Fe}(\text{NO}_3)_3$, $\text{Cu}(\text{NO}_3)_2$, $\text{Hg}(\text{NO}_3)_2$ and $\text{Cd}(\text{NO}_3)_2$ salts as function of the phenyl-aza-15-crown-5 concentration was measured in different acetonitrile-water mixts. at various temps.; the salt-PhA15C5 complex formation consts. were determined. The stability of the nitrate salts decreases in the order $\text{Hg}^{2+} > \text{Cu}^{2+} > \text{Fe}^{3+} > \text{Cd}^{2+}$ and the formation consts. decrease as the percentage of acetonitrile decreases in the mixture. The counter anion also affects the stability of the complexes; the metal perchlorate-crown complexes are more stable than those of the metal nitrate salts. The enthalpy and entropy of the complexation were calculated and were found to be sensitive to solvent composition
 IT 3251-23-8 10421-48-4 13770-18-8
 RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (conductance and thermodn. study of complexation between transition or heavy metal salts and phenyl-aza-15-crown-5 in aqueous acetonitrile solns.)
 RN 3251-23-8 HCPLUS
 CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



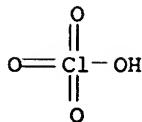
●1/2 Cu(II)

RN 10421-48-4 HCPLUS
 CN Nitric acid, iron(3+) salt (8CI, 9CI) (CA INDEX NAME)



●1/3 Fe(III)

RN 13770-18-8 HCPLUS
 CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

CC 68-3 (Phase Equilibria, Chemical Equilibria, and Solutions)
 Section cross-reference(s): 29, 78

IT 3251-23-8 10045-94-0, Mercuric nitrate 10325-94-7
 10421-48-4 13537-24-1, Ferric perchlorate
 13770-18-8 14302-87-5, Hg²⁺, processes 14797-55-8,
 Nitrate, processes 14797-73-0, Perchlorate 15158-11-9, Cu²⁺,
 processes 20074-52-6, Fe³⁺, processes 22537-48-0, Cd²⁺,
 processes 66750-10-5
 RL: PEP (Physical, engineering or chemical process); RCT
 (Reactant); PROC (Process); RACT (Reactant or reagent)
 (conductance and thermodyn. study of complexation between
 transition or heavy metal salts and phenyl-aza-15-crown-5 in
 aqueous acetonitrile solns.)

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L88 ANSWER 21 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:195552 HCPLUS

DOCUMENT NUMBER: 130:213353

TITLE: Copper speciation in aqueous solutions of
 fulvic acid and related molecular weight
 distributions

AUTHOR(S): Wolf, M.; Teichmann, G.; Hoque, E.; Szymczak,
 W.; Schimmack, W.

CORPORATE SOURCE: Institute Hydrology, GSF-National Research
 Center Environment Health, Neuherberg,
 D-85764, Germany

SOURCE: Fresenius' Journal of Analytical Chemistry
 (1999), 363(5-6), 596-599

CODEN: FJACES; ISSN: 0937-0633

PUBLISHER: Springer-Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Potentiometric and fluorescence measurements of aqueous solns. of
 fulvic acid containing Cu(NO₃)₂ or Cu(ClO₄)₂, resp., were carried out
 at 25° and pH 5.5 to determine naturally occurring Cu species.
 The fulvic acid used was isolated by XAD-8 from filtrated (0.3
 µm) water of a peat bog in the Dachauer Moos near Munich. From
 the results an operational mol. weight of fulvic acid of ≈750
 g/mol was estimated, which was confirmed by mol. weight distributions
 determined by high-performance size-exclusion chromatog. (HPSEC), gel
 permeation chromatog. (GPC), and time-of-flight SIMS. Using this
 mol. weight and assuming that mainly 1:1 Cu-fulvic acid complexes are
 formed, a conditional stability constant of the Cu-fulvic acid
 complex of 105.9 could be calculated. These data are essential for the
 assessment of organic carrier-mediated migration of Cu as well as of
 the toxicol. risk potential of Cu in aqueous environment and
 can be used as input parameters for geochem. modeling of the Cu
 species distribution in aqueous solns.

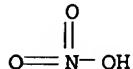
IT 3251-23-8, Cupric nitrate 13770-18-8, Cupric
 perchlorate

RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
 (copper speciation in aqueous solns. of fulvic acid containing Cu(NO₃)₂

or Cu(ClO₄)₂ and related mol. weight distributions for toxicol. risk assessment in bog waters)

RN 3251-23-8 HCPLUS

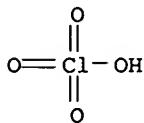
CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



● 1/2 Cu(II)

RN 13770-18-8 HCPLUS

CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



● 1/2 Cu(II)

CC 61-3 (Water)

Section cross-reference(s): 79

IT Wetland waters

(bog; copper speciation in aqueous solns. of fulvic acid containing Cu(NO₃)₂ or Cu(ClO₄)₂ and related mol. weight distributions for toxicol. risk assessment in)

IT Molecular weight distribution

(copper speciation in aqueous solns. of fulvic acid containing Cu(NO₃)₂ or Cu(ClO₄)₂ and related mol. weight distributions for toxicol. risk assessment in bog waters)

IT Fulvic acids

RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)

(copper speciation in aqueous solns. of fulvic acid containing Cu(NO₃)₂ or Cu(ClO₄)₂ and related mol. weight distributions for toxicol. risk assessment in bog waters)

IT 7732-18-5, Water, analysis

RL: AMX (Analytical matrix); ANST (Analytical study)

(copper speciation in aqueous solns. of fulvic acid containing Cu(NO₃)₂ or Cu(ClO₄)₂ and related mol. weight distributions for toxicol. risk assessment in bog waters)

IT 7440-50-8D, Copper, fulvic acid complex, analysis

RL: ANT (Analyte); FMU (Formation, unclassified); ANST (Analytical study); FORM (Formation, nonpreparative)

(copper speciation in aqueous solns. of fulvic acid containing Cu(NO₃)₂ or Cu(ClO₄)₂ and related mol. weight distributions for toxicol. risk assessment in bog waters)

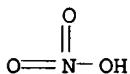
IT 3251-23-8, Cupric nitrate 13770-18-8, Cupric perchlorate

RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)

(copper speciation in aqueous solns. of fulvic acid containing Cu(NO₃)₂ or Cu(ClO₄)₂ and related mol. weight distributions for toxicol. risk assessment in bog waters)

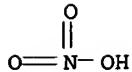
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L88 ANSWER 22 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1998:282908 HCPLUS
 DOCUMENT NUMBER: 129:9202
 TITLE: Real Ionic Solutions in the Mean Spherical Approximation. 3. Osmotic and Activity Coefficients for Associating Electrolytes in the Primitive Model
 AUTHOR(S): Simonin, Jean-Pierre; Bernard, Olivier; Blum, Lesser
 CORPORATE SOURCE: Laboratoire Liquides Ioniques et Interfaces Chargees (LI2C-URA CNRS 430), Universite Paris VI, Paris, 75252, Fr.
 SOURCE: Journal of Physical Chemistry B (1998), 102(22), 4411-4417
 CODEN: JPCBFK; ISSN: 1089-5647
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Osmotic and activity coeffs. for aqueous solns. of pure associating electrolytes are described by a MSA-like theory that includes the following effects: association (ion pairing or chemical) and solvation. The association of ions of opposite charges is described using the BIMSA, based on the Wertheim formalism. As for nonassocg. electrolytes, the hydration is taken into account by introducing a cation size and permittivity that are allowed to vary with concentration. New expressions for the osmotic and activity coefficient are given that account for this variation. These equations have been applied to fit data for a variety of aqueous solns. of pure salts at 25°. About 80 new salts have been treated, including perchlorates, nitrates, hydroxides, and sulfates. For some solns., good fits could be obtained up to very high concns., such as 25 mol kg-1 for ammonium nitrate and 34 mol kg-1 for potassium nitrite. Solns. of NaOH and nitric acid could be described to 10 mol kg-1. A description for sulfuric acid has been obtained at low concentration (below 0.1 mol kg-1). Another description has been made for high concns. (between 6 and 28 mol kg-1) by using a chemical plausible model. In most cases the association constant is of the same order of magnitude as the literature value when available.
 IT 3251-23-8 13138-45-9, Nickel nitrate
 13770-18-8, Copper(II) perchlorate
 RL: PRP (Properties)
 (mean spherical approximation study of osmotic and activity coeffs. for associating electrolytes in primitive model)
 RN 3251-23-8 HCPLUS
 CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



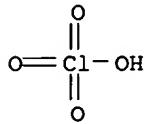
●1/2 Cu(II)

RN 13138-45-9 HCPLUS
 CN Nitric acid, nickel(2+) salt (8CI, 9CI) (CA INDEX NAME)



● 1/2 Ni(II)

RN 13770-18-8 HCAPLUS
 CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



● 1/2 Cu(II)

CC 68-6 (Phase Equilibria, Chemical Equilibria, and Solutions)
 IT 56-34-8, Tetraethylammonium chloride 64-20-0,
 Tetramethylammonium bromide 68-05-3, Tetraethylammonium iodide
 71-91-0, Tetraethylammonium bromide 75-57-0, Tetramethylammonium
 chloride 75-58-1, Tetramethylammonium iodide 127-08-2,
 Potassium acetate 127-09-3, Sodium acetate 137-40-6, Sodium
 propionate 141-53-7, Sodium formate 333-20-0, Potassium
 thiocyanate 540-72-7, Sodium thiocyanate 546-89-4, Lithium
 acetate 631-40-3, Tetrapropylammonium iodide 1310-58-3,
 Potassium hydroxide, properties 1310-65-2, Lithium hydroxide
 1310-73-2, Sodium hydroxide, properties 1314-64-3, Uranyl
 sulfate 1941-30-6, Tetrapropylammonium bromide 3251-23-8
 5810-42-4, Tetrapropylammonium chloride 6484-52-2, Ammonium
 nitrate, properties 7447-39-4, Copper(II) chloride, properties
 7487-88-9, Magnesium sulfate, properties 7601-90-3, Perchloric
 acid, properties 7631-99-4, Sodium nitrate, properties
 7632-00-0, Sodium nitrite 7646-85-7, Zinc(II) chloride,
 properties 7647-17-8, Cesium chloride, properties 7664-93-9,
 Sulfuric acid, properties 7697-37-2, Nitric acid, properties
 7718-54-9, Nickel chloride, properties 7733-02-0, Zinc sulfate
 7757-79-1, Potassium nitrate, properties 7757-82-6, Sodium
 sulfate, properties 7758-09-0, Potassium nitrite 7758-98-7,
 Copper(II) sulfate, properties 7761-88-8, Silver nitrate,
 properties 7778-18-9, Calcium sulfate 7778-80-5, Potassium
 sulfate, properties 7779-88-6, Zinc(II) nitrate 7783-20-2,
 Ammonium sulfate, properties 7785-87-7, Manganese(II) sulfate
 7786-81-4, Nickel sulfate 7787-69-1, Cesium bromide 7789-17-5,
 Cesium iodide 7789-18-6, Cesium nitrate 7789-39-1, Rubidium
 bromide 7790-29-6, Rubidium iodide 7790-86-5, Cerium chloride
 7790-98-9 7791-11-9, Rubidium chloride, properties 7791-26-6,
 Uranyl chloride 10022-31-8, Barium nitrate 10025-76-0,
 Europium chloride 10026-08-1, Thorium chloride 10042-76-9,
 Strontium nitrate 10099-58-8, Lanthanum chloride 10099-59-9,
 Lanthanum nitrate 10099-66-8, Lutetium trichloride 10102-06-4,
 Uranyl nitrate 10124-36-4, Cadmium sulfate 10124-37-5, Calcium
 nitrate 10377-48-7, Lithium sulfate 10377-60-3, Magnesium
 nitrate 12124-97-9, Ammonium bromide 12125-02-9, Ammonium
 chloride, properties 13126-12-0, Rubidium nitrate
 13138-45-9, Nickel nitrate 13510-49-1, Beryllium sulfate
 13568-33-7, Lithium nitrite 13637-61-1, Zinc(II) perchlorate
 13637-71-3, Nickel perchlorate 13770-18-8, Copper(II)

perchlorate 13823-29-5, Thorium(IV) nitrate 14017-46-0,
 Lanthanum perchlorate 17194-00-2, Barium hydroxide

RL: PRP (Properties)

(mean spherical approximation study of osmotic and activity coeffs.
 for associating electrolytes in primitive model)

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L88 ANSWER 23 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:124027 HCPLUS

DOCUMENT NUMBER: 128:221627

TITLE: Enhancement of antimicrobial peptide activity
 by metal ions

INVENTOR(S): Lawyer, Carl H.; Watabe, Kounosuke

PATENT ASSIGNEE(S): Southern Illinois University, USA

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

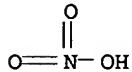
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9806419	A1	19980219	WO 1997-US14399	1997 0815
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2263164	AA	19980219	CA 1997-2263164	1997 0815
AU 9740699	A1	19980306	AU 1997-40699	1997 0815
AU 725954	B2	20001026		
EP 920327	A1	19990609	EP 1997-938344	1997 0815
US 6042848	A	20000328	US 1997-911794	1997 0815
PRIORITY APPLN. INFO.:			US 1996-23983P	P 1996 0815
			WO 1997-US14399	W 1997 0815

AB Provided are methods for maintaining or enhancing the
 antimicrobial activity of antimicrobial peptides, lytic peptides,
 and peptide-derived antibiotics by the use of metal ions. Also
 provided are pharmaceutical and other compns. comprising
 such peptides and/or at least one metal ion. Also provided are

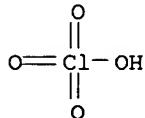
therapeutic and other methods for controlling the growth of undesirable or pathogenic microorganisms in various loci or milieu in, on, or outside the body employing these peptides and metal ions. Also provided are kits comprising containers containing a peptide and a metal ion(s), resp.

IT 3251-23-8, Cupric nitrate 13770-18-8, Cupric perchlorate
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (enhancement of antimicrobial peptide activity by metal ions)
 RN 3251-23-8 HCPLUS
 CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

RN 13770-18-8 HCPLUS
 CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

IC ICM A61K038-17
 CC 63-6 (Pharmaceuticals)
 Section cross-reference(s): 1
 IT 71-00-1D, Histidine, copper chelate 142-71-2, Cupric acetate 527-09-3, Copper gluconate 540-16-9, Cupric butyrate 544-19-4, Cupric formate 598-54-9, Cuprous acetate 624-88-4, Cuprous formate 660-60-6, Cupric stearate 814-91-5, Cupric oxalate 815-82-7, Cupric tartrate 866-82-0, Cupric citrate 1120-44-1, Cupric oleate 1184-64-1, Cupric carbonate 1303-92-0, Cupric borate 1308-09-4, Cupric chromate 1317-38-0, Cupric oxide, biological studies 1317-39-1, Cuprous oxide, biological studies 1317-40-4, Cupric sulfide 3251-23-8, Cupric nitrate 3251-29-4, Cuprous nitrate 3444-14-2 3687-47-6 7447-39-4, Cupric chloride, biological studies 7681-65-4, Cuprous iodide 7758-89-6, Cuprous chloride 7758-98-7, Cupric sulfate, biological studies 7787-70-4, Cuprous bromide 7789-45-9, Cupric bromide 7798-23-4, Cupric phosphate 10103-48-7, Copper phosphate 10402-29-6, Copper nitrate 11113-59-0, Copper fluoride 12125-21-2, Cuprous hydroxide 13097-41-1 13479-54-4, Cupric glycinate 13770-18-8, Cupric perchlorate 14701-21-4, Silver ion, biological studies 14721-21-2, Cupric chlorate 15061-57-1, Cuprous perchlorate 15123-69-0, Cupric selenate 15158-11-9, biological studies 15488-81-0 15599-88-9 15721-63-8, Copper, ion (Cu³⁺), biological studies 16048-96-7, Cupric salicylate 16397-91-4, Manganese ion (Mn²⁺), biological studies 17493-86-6, Copper, ion (Cu¹⁺), biological studies 20427-59-2, Cupric hydroxide 20563-00-2, Cuprous stearate 20681-14-5, biological studies 22205-45-4, Cuprous sulfide 22537-21-9, Boron ion (B³⁺),

biological studies 22537-23-1, Aluminum ion, biological studies 24203-36-9, Potassium ion, biological studies 37231-28-0, Melittin 41707-84-0, Cuprous salicylate 44042-21-9, Cuprous phosphate 50671-60-8, Cuprous butyrate 51827-01-1, Xenopsin 53421-36-6 54453-03-1 55068-79-6, Bombinin 57131-61-0 80802-79-5, Cecropin 103220-14-0, Defensin 113041-69-3, Magainin 114281-19-5, Levitide 116229-36-8, Bactenecin 119938-54-4, Sapecin 120668-29-3, Cryptdin 125543-62-6 134201-21-1 146345-75-7 148045-87-8, Tachyplesin 163663-18-1, Protegrin 172972-39-3, Copper borate oxide (Cu6(BO2)4O) 179264-81-4 204143-82-8, Azurcidin

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (enhancement of antimicrobial peptide activity by metal ions)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

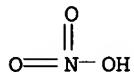
L88 ANSWER 24 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1995:277206 HCPLUS
 DOCUMENT NUMBER: 122:37851
 TITLE: Process for removal of bases from waste gases or air.
 INVENTOR(S): Shimada, Takashi; Okumura, Toshio; Hatakeyama, Toshiya
 PATENT ASSIGNEE(S): Japan Pionics Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 10 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 624392	A1	19941117	EP 1994-106928	1994 0504
EP 624392 R: DE, FR, GB JP 06319938	B1	19980812		
JP 06319938	A2	19941122	JP 1993-132719	1993 0511
JP 06319939	A2	19941122	JP 1993-132720	1993 0511
US 5662872	A	19970902	US 1995-560171	1995 1117
PRIORITY APPLN. INFO.:			JP 1993-132719	A 1993 0511
			JP 1993-132720	A 1993 0511
			US 1994-236343	B1 1994 0502

AB There is disclosed a process for cleaning a harmful gas which comprises bringing a gas containing a basic gas as a harmful component such as ammonia and amines into contact with a cleaning agent comprising a cupric salt supported on an inorg. carrier composed of an metallic oxide such as silica and

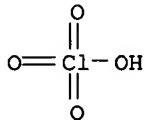
alumina or a metallic oxide mixture of cupric oxide and manganese dioxide to remove the harmful component from the gas containing a basic gas. According to the above process, it is made possible to effectively remove a basic gas such as ammonia and trimethylamine contained in the exhaust gas from semiconductor production process; and a harmful basic gas contained in dilution gas such as air or nitrogen which dils. the harmful gas suddenly leaked in emergency from a gas bomb filled inside with the harmful gas. Moreover, the process enables to prevent the occurrence of fire even in the coexistence of other gas such as silane, while maintaining excellent effect on the removal of the harmful gas.

IT 3251-23-8, Cupric nitrate 13770-18-8, Cupric perchlorate
 RL: NUU (Other use, unclassified); USES (Uses)
 (process for removal of bases from waste gases or air using cupric salts)
 RN 3251-23-8 HCAPLUS
 CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

RN 13770-18-8 HCAPLUS
 CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)

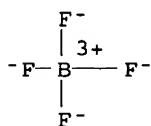


●1/2 Cu(II)

IC ICM B01D053-34
 ICS B01D053-36; B01J020-06
 CC 59-4 (Air Pollution and Industrial Hygiene)
 IT 1313-13-9, Manganese dioxide, uses 1314-23-4, Zirconia, uses 1317-38-0, Cupric oxide, uses 1344-28-1, Alumina, uses 3251-23-8, Cupric nitrate 7631-86-9, Silica, uses 7758-98-7, Cupric sulfate, uses 7798-23-4, Cupric phosphate 7803-62-5, Silane, uses 13463-67-7, Titania, uses 13770-18-8, Cupric perchlorate 14721-21-2, Cupric chlorate 20255-20-3 36386-77-3, Cupric carbonate 39290-85-2, Cupric borate 55072-58-7, Silicic acid, copper(2+) salt 122202-26-0, Hypochlorous acid, copper(2+) salt
 RL: NUU (Other use, unclassified); USES (Uses)
 (process for removal of bases from waste gases or air using cupric salts)

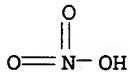
L88 ANSWER 25 OF 45 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1995:249698 HCAPLUS
 DOCUMENT NUMBER: 122:303983
 TITLE: Electrochemical formation of initial composition for superconductor synthesis in system Bi-Pb-Sr-Ca-Cu-O. I. A

AUTHOR(S): search for electrolytes for electrodeposition
 of Bi-Pb-Sr-Ca-Cu and Bi-Pb-Cu alloys
 Mochadskii, A. M.; Jankauskiene, R.-D. P.;
 Sharkis, A. A.; Juktonis, S. E.; Vengalis, B.
 Institute Chemistry, Vilnius, 2006, Lithuania
 SOURCE: Sverkhprovodimost: Fizika, Khimiya, Tekhnika
 (1993), 6(9-10), 1896-902
 CODEN: SFKTE6; ISSN: 0131-5366
 PUBLISHER: Institut Atomnoi Energii im. I. V. Kurchatova
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 AB An electrolyte composition is worked out for deposition of
 basic initial components used for high temperature superconductor
 synthesis in the Bi-Pb-Sr-Ca-Cu-O system with the atomic ratio of
 Bi:Pb:Cu = 1.8:0.2:3.
 IT 38465-60-0, Copper fluoroborate (Cu(BF₄)₂)
 RL: NUU (Other use, unclassified); PEP (Physical, engineering or
 chemical process); PROC (Process); USES (Uses)
 (electrolyte; Bi Ca Cu Pb Sr oxide superconductors from alloy
 electrodeposition)
 RN 38465-60-0 HCAPLUS
 CN Borate(1-), tetrafluoro-, copper(2+) (2:1) (9CI) (CA INDEX NAME)



●1/2 Cu(II) ²⁺

IT 3251-23-8, Cupric nitrate
 RL: PRP (Properties)
 (potentiometric curves of Pt electrode polarization in
 electrolyte solns.)
 RN 3251-23-8 HCAPLUS
 CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

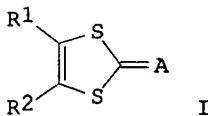
CC 76-4 (Electric Phenomena)
 Section cross-reference(s): 57, 72
 IT 13814-96-5, Lead fluoroborate (Pb(BF₄)₂) 38465-60-0,
 Copper fluoroborate (Cu(BF₄)₂) 65991-46-0, Bismuth fluoroborate
 (Bi(BF₄)₃)
 RL: NUU (Other use, unclassified); PEP (Physical, engineering or
 chemical process); PROC (Process); USES (Uses)
 (electrolyte; Bi Ca Cu Pb Sr oxide superconductors from alloy
 electrodeposition)
 IT 3251-23-8, Cupric nitrate 10042-76-9, Strontium nitrate
 10099-74-8, Lead dinitrate 10124-37-5, Calcium nitrate
 10361-44-1, Bismuth nitrate
 RL: PRP (Properties)

(potentiometric curves of Pt electrode polarization in
electrolyte solns.)

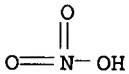
L88 ANSWER 26 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:323557 HCPLUS
DOCUMENT NUMBER: 120:323557
TITLE: Preparation of 2-(disubstituted
methylene)-1,3-dithioles as liver disease
treating agents
INVENTOR(S): Shibuya, Isao; Yonemoto, Katsumi; Yasumoto,
Masahiko; Taguchi, Yoichi; Tsucha, Tooru;
Mizuno, Masaki
PATENT ASSIGNEE(S): Kogyo Gijutsuin, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
JP 05310730	A2	19931122	JP 1992-113962	1992 0407
JP 06084369	B4	19941026	JP 1992-113962	1992 0407
PRIORITY APPLN. INFO.:				

OTHER SOURCE(S): CASREACT 120:323557; MARPAT 120:323557
GI

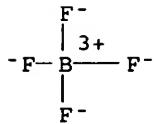


AB The title compds. I (A = CR₃R₄; R₁, R₂ = H, inert substituent; R₃, R₄ = electron-withdrawing group; R₁R₂ may be combined to form a ring), useful for liver disease treating agents (no data), are prepared by treating I (A = S) with CH₂R₃R₄ in the presence of Ag salts and bases. A mixture of I (A = S, R₁ = R₂ = Ph) and Ag trifluoroacetate in MeCN was treated with MeO₂CCH₂CN and Et₃N in hot bath for 2 h to give 58% I (A = C(CN)CO₂Me).
IT 7761-88-8, Silver nitrate, uses
RL: USES (Uses)
(in substitution of dithiolthiones with methylene compds.)
RN 7761-88-8 HCPLUS
CN Nitric acid silver(1+) salt (8CI, 9CI) (CA INDEX NAME)



● Ag(I)

IT 14104-20-2, Silver tetrafluoroborate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (in substitution of dithiolthiones with methylene compds.)
 RN 14104-20-2 HCPLUS
 CN Borate(1-), tetrafluoro-, silver(1+) (8CI, 9CI) (CA INDEX NAME)



● Ag(I) +

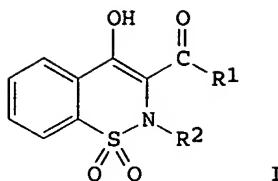
IC ICM C07D339-06
 ICS B01J027-12; B01J027-25; B01J031-02; B01J031-04
 ICA C07B061-00
 CC 28-5 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 1
 IT 7761-88-8, Silver nitrate, uses
 RL: USES (Uses)
 (in substitution of dithiolthiones with methylene compds.)
 IT 51-92-3 2966-50-9, Silver trifluoroacetate 14104-20-2,
 Silver tetrafluoroborate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (in substitution of dithiolthiones with methylene compds.)

L88 ANSWER 27 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1993:603424 HCPLUS
 DOCUMENT NUMBER: 119:203424
 TITLE: Method of preparing complexes of copper(II)
 with 1,2-benzothiazines, useful as
 antiinflammatories
 INVENTOR(S): Mroziniski, Jerzy; Zborucki, Zygmunt; Janik,
 Maria; Wajcht, Jozef; Mozolowski, Felicjan
 PATENT ASSIGNEE(S): Jeleniogorskie Zaklady Farmaceutyczne "Polfa",
 Pol.; Uniwersytet Wroclawski
 SOURCE: Pol., 6 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Polish
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

PL 155110	B1	19911031	PL 1987-268015	1987
-----------	----	----------	----------------	------

PRIORITY APPLN. INFO.:	PL 1987-268015	1987
		1001
OTHER SOURCE(S):	MARPAT 119:203424	1987
GI		1001



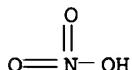
AB Complexes of Cu(II) with various oxicams I [R1 = OMe, OEt, 2-pyridylamino (Q), 5-methyl-3-isoxazolylamino; R2 = Me, Et] were prepared by reaction of 2 equiv I with 1 equiv Cu(II) salt in H₂O and/or an organic solvent. For example, piroxicam in H₂O was dissolved by treatment with 2% NaOH, and excess NaOH was neutralized with aqueous HCl (to pH 8). Aqueous CuCl₂ was added, and the resulting precipitate was centrifuged and dried to give 80% Cu·2I·2H₂O (R1 = Q, R2 = Me) (II). II showed antiinflammatory and analgesic activity in rats (no data), showed lower toxicity than piroxicam, and was nearly devoid of ulcerogenic effects. Six addnl. examples are described.

IT 3251-23-8, Cupric nitrate 13770-18-8, Cupric perchlorate

RL: RCT (Reactant); RACT (Reactant or reagent)
(complexation of, with oxicam antiinflammatories)

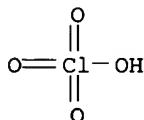
RN 3251-23-8 HCAPLUS

CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



● 1/2 Cu(II)

RN 13770-18-8 HCPLUS
CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



● 1/2 Cu(II)

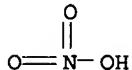
IC ICM C07D279-02
IC S C07D417-12
CC 28-14 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 78
IT **Toxicity**
 (of copper complexes of oxicam antiinflammatories)
IT 142-71-2, Cupric acetate 3251-23-8, Cupric nitrate
7447-39-4, Cupric chloride, reactions 7758-98-7, Cupric sulfate,
reactions 13770-18-8, Cupric perchlorate
RL: RCT (Reactant); RACT (Reactant or reagent)
 (complexation of, with oxicam antiinflammatories)

L88 ANSWER 28 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1992:462350 HCPLUS
 DOCUMENT NUMBER: 117:62350
 TITLE: Inhibition of HIV-1 proteinase by metal ions
 AUTHOR(S): Woon, T. C.; Brinkworth, R. I.; Fairlie, D. P.
 CORPORATE SOURCE: Cent. Drug Des. Dev., Univ. Queensland, 4072, Australia
 SOURCE: International Journal of Biochemistry (1992), 24(6), 911-14
 CODEN: IJBOBV; ISSN: 0020-711X
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Certain metal ions have been identified as inhibitors (IC₅₀ 1-20 μ M) of the aspartic proteinase of human immunodeficiency virus type 1 (HIV-PR). By contrast most simple metal ions do not inhibit this enzyme. Those that did inhibit have in common a high charge/size ratio or "hard" acidic nature, preferring to combine covalently with oxygen donor ligands. Some evidence from independent X-ray crystal structure detns. suggests that the metalloinhibitors identified here may bind in the active site of the enzyme via coordination to the carboxylate side chains of the essential active site residues Asp 25 and 125. Although the measured inhibition is only μ M, very few enzyme-inhibitor interactions can be taking place and so more complex metalloinhibitors with ligands that can also bind to peptide side chains of the enzyme might be significantly more potent inhibitors of HIV-PR and of viral replication.

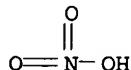
IT 10141-05-6 10421-48-4 13770-18-8
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (antiviral activity of, human immunodeficiency virus type 1 aspartic proteinase inhibition and electronic configuration in relation to)

RN 10141-05-6 HCPLUS
 CN Nitric acid, cobalt(2+) salt (8CI, 9CI) (CA INDEX NAME)



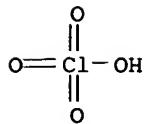
● 1/2 Co(II)

RN 10421-48-4 HCPLUS
 CN Nitric acid, iron(3+) salt (8CI, 9CI) (CA INDEX NAME)



● 1/3 Fe(III)

RN 13770-18-8 HCPLUS
 CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

CC 1-5 (Pharmacology)
 IT 814-80-2 1271-19-8 7647-10-1, Palladium chloride (PdCl₂)
 7718-54-9, Nickel chloride (NiCl₂), biological studies 7733-02-0
 7758-94-3, Iron chloride (FeCl₂) 7803-55-6 10025-99-7
 10099-74-8 10102-06-4 10141-05-6 10421-48-4
 12027-67-7 12244-57-4 13721-39-6 13770-16-6
 13770-18-8 15189-51-2 24419-56-5 27774-13-6
 RL: BAC (Biological activity or effector, except adverse); BSU
 (Biological study, unclassified); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (antiviral activity of, human immunodeficiency virus type 1
 aspartic proteinase inhibition and electronic configuration in
 relation to)

L88 ANSWER 29 OF 45 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:257840 HCAPLUS
 DOCUMENT NUMBER: 116:257840
 TITLE: Liquid membranes for separation of gaseous
 olefins from alkanes
 INVENTOR(S): Blachman, Marc W.; Tsou, Dean T.
 PATENT ASSIGNEE(S): Standard Oil Co., USA
 SOURCE: Eur. Pat. Appl., 12 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 458598	A2	19911127	EP 1991-304602	1991 0521
EP 458598 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE CA 2040798	A3 AA	19920311 19911126	CA 1991-2040798	1991 0418
ZA 9103411	A	19920226	ZA 1991-3411	1991 0506
BR 9102047	A	19911224	BR 1991-2047	1991 0517
JP 04227823	A2	19920817	JP 1991-116332	1991 0521
CN 1056826	A	19911211	CN 1991-103420	1991 0524
RU 2045509	C1	19951010	RU 1991-4895488	1991 0524

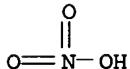
US 5135547	A	19920804	US 1991-721909	
				1991
				0620
PRIORITY APPLN. INFO.:			US 1990-528849	A
				1990
				0525

AB The title membranes comprise porous supports, aqueous solns of metal salts coordinating with olefins, and aliphatic carbonates as cosolvents. Thus, cellulose (mol. weight 6000-8000) disks were impregnated with a solution of MeOH, H₂O, and 3N AgBF₄ in 50% aqueous propylene carbonate (I) and precipitating in 50% aqueous I gave a liquid membrane with C₂H₄ and C₂H₆ permeability 2 + 10⁻⁷ and 3.0 + 10⁻¹⁰ mL-cm/cm²-5 cm Hg, resp.

IT 7761-88-8, Silver nitrate, uses 14104-20-2,
Silver tetrafluoroborate
RL: USES (Uses)
(in liquid membranes for separating gaseous olefins and alkanes)

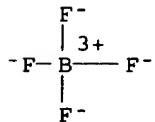
RN 7761-88-8 HCPLUS

CN Nitric acid silver(1+) salt (8CI, 9CI) (CA INDEX NAME)



● Ag(I)

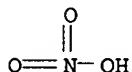
RN 14104-20-2 HCPLUS
CN Borate(1-), tetrafluoro-, silver(1+) (8CI, 9CI) (CA INDEX NAME)



● Ag(I) +

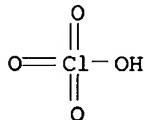
IC ICM B01D061-38
ICS B01D053-22; C07C007-144
CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)
IT Ceramic materials and wares
Glass, oxide
Metals, preparation
Polyamides, uses
Polycarbonates, uses
Polyimides, uses
Polysulfones, uses
RL: USES (Uses)
(supports, for liquid membranes for olefin-alkane separation)
IT 96-49-1, Ethylene carbonate 108-32-7, Propylene carbonate
7761-88-8, Silver nitrate, uses 7775-41-9, Silver
fluoride 14104-20-2, Silver tetrafluoroborate
RL: USES (Uses)
(in liquid membranes for separating gaseous olefins and alkanes)

ACCESSION NUMBER: 1990:56778 HCPLUS
 DOCUMENT NUMBER: 112:56778
 TITLE: Mechanistic studies of the oxidative-coupling polymerization of 2,6-dimethylphenol. Part V. Effect of different copper counter-ions on the structure of the copper complex, its catalytic activity and specificity for polymer formation
 AUTHOR(S): Viersen, F. J.; Challa, G.; Reedijk, J.
 CORPORATE SOURCE: Lab. Polym. Chem., Univ. Groningen, Groningen, 9747 AG, Neth.
 SOURCE: Recueil des Travaux Chimiques des Pays-Bas (1989), 108(7-8), 247-55
 CODEN: RTCPA3; ISSN: 0165-0513
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB In studying the mechanism of the oxidation coupling polymerization of 2,6-dimethylphenol, the effect of the Cu counter-ion was also investigated. This polymerization is catalyzed by Cu(II)-amine complexes. The counter-ions were divided into strongly coordinating (Cl⁻ and Br⁻), weakly coordinating (NO₃⁻), and noncoordinating counter-ions (ClO₄⁻, CF₃SO₃⁻ and BF₄⁻). The active catalyst, or its precursor, is the chloro-bridged, or bromo-bridged, dinuclear copper complex with hydroxide acting as a co-catalyst required for the formation of strongly coordinating phenolate anions. Although large differences in reactivity were observed, the product composition, i.e., the fraction of polymer and diphenoxquinone side-product, was not affected by the counter-ion used.
 IT 3251-23-8, Copper dinitrate 13770-18-8, Copper diperchlorate 34946-82-2, Copper ditriflate 38465-60-0
 RL: CAT (Catalyst use); USES (Uses) (catalyst, containing tetramethylethylenediamine, for polymerization of dimethylphenol, mechanism in relation to)
 RN 3251-23-8 HCPLUS
 CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



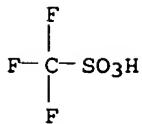
● 1/2 Cu(II)

RN 13770-18-8 HCPLUS
 CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



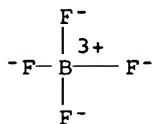
● 1/2 Cu(II)

RN 34946-82-2 HCPLUS
 CN Methanesulfonic acid, trifluoro-, copper(2+) salt (9CI) (CA INDEX NAME)



●1/2 Cu(II)

RN 38465-60-0 HCPLUS
 CN Borate(1-), tetrafluoro-, copper(2+) (2:1) (9CI) (CA INDEX NAME)



●1/2 Cu(II) 2+

CC 35-3 (Chemistry of Synthetic High Polymers)
 IT 3251-23-8, Copper dinitrate 7447-39-4, Copper dichloride, uses and miscellaneous 7789-45-9, Copper dibromide 13770-18-8, Copper diperchlorate 34946-82-2, Copper ditriflate 38465-60-0
 RL: CAT (Catalyst use); USES (Uses)
 (catalyst, containing tetramethylethylenediamine, for polymerization of dimethylphenol, mechanism in relation to)

L88 ANSWER 31 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1989:525906 HCPLUS

DOCUMENT NUMBER: 111:125906

TITLE: Atom formation function in electrothermal atomic absorption spectrometry and its application to analytical chemistry. VI. Effects of anions, acids, alkali and alkaline earth salts and determination of some metals in biological samples under chemical interference-free conditions

AUTHOR(S): Nakamura, Susumu; Kubota, Masaaki

CORPORATE SOURCE: Natl. Chem. Lab. Ind., Tskuba, Japan

SOURCE: Kagaku Gijutsu Kenkyusho Hokoku (1988), 83(6), 263-72

CODEN: KGKHEP; ISSN: 0388-3213

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB Matrix interferences in electrothermal atomic absorption spectrometry were evaluated by the atom formation model function given in the authors' previous paper. Activation energies calculated from the absorbance signal using the function reveal the chemical state of an analyte at its atomization stage; i.e., whether a chemical bond exists between the analyte and concomitants or not. With Cu sulfate, nitrate, perchlorate and chloride, signals of Cu were the same as those obtained with Cu metal. However, the signals changed when adding H₂SO₄, HNO₃, HClO₄, and HCl. Similarly, Fe signals showed interference with H₂SO₄ and HCl but not with Fe salts. The activation energies obtained with Cu and Fe metals agreed with those obtained by the addition of the acids within the

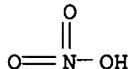
precision of the measurement. This demonstrates that acid interferences are not due to combination of analyte with matrixes. To clarify whether the effects of alkali and alkaline earth salts are due to chemical interference or not, activation energies of the analytes were calculated from signals and furnace temps. using the atom formation equation. In the case of Cu, the coexistence of nitrates and/or perchlorates of alkali and alkaline earth elements is thought to cause chemical interference, because these salts decrease the activation energies as well as the signal of the analyte. No remarkable chemical interference occurs with alkali and alkaline earth sulfates and/or chlorides. This suggests that the interference is not caused by chemical bonding between the analytes and the alkali and alkaline earth elements but between the analytes and the anion which sep. from the alkali and alkaline earth elements at high temps. Thermal gravimetric plots are given for some of the Cu and Fe salts as well as for the acids. A fast response system was applied to the determination of Cu, Fe, Cd and Zn in biol. samples. Based on the atom formation model function, activation energies of these elements at the atomization stage were measured to ascertain chemical interferences and select interference-free anal. conditions. Activation energies obtained for Cu, Fe and Zn metal in the absence of a matrix were in agreement with those obtained for these metals contained in NBS biol. standard reference materials. Also, anal. values agreed well with the certified ones within the precision of the present method. These results demonstrate that chemical interferences are negligibly small under the anal. conditions selected.

IT 3251-23-8, Cupric nitrate 13770-18-8, Cupric perchlorate

RL: AMX (Analytical matrix); ANST (Analytical study)
(copper determination in, by electrothermal atomic absorption spectrometry, matrix effect in)

RN 3251-23-8 HCPLUS

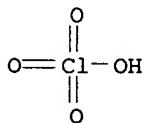
CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

RN 13770-18-8 HCPLUS

CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



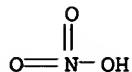
●1/2 Cu(II)

IT 10421-48-4, Ferric nitrate

RL: AMX (Analytical matrix); ANST (Analytical study)
(iron determination in, by electrothermal atomic absorption spectrometry, matrix effect in)

RN 10421-48-4 HCPLUS

CN Nitric acid, iron(3+) salt (8CI, 9CI) (CA INDEX NAME)



●1/3 Fe(III)

CC 79-6 (Inorganic Analytical Chemistry)
 Section cross-reference(s): 9

IT Liver, composition
 Plant analysis
 (transition metal determination in, by electrothermal atomic absorption spectrometry under chemical interference-free conditions)

IT 3251-23-8, Cupric nitrate 7447-39-4, Cupric chloride, analysis 7758-98-7, Cupric sulfate, analysis 13770-18-8, Cupric perchlorate
 RL: AMX (Analytical matrix); ANST (Analytical study)
 (copper determination in, by electrothermal atomic absorption spectrometry, matrix effect in)

IT 7705-08-0, Ferric chloride, analysis 10028-22-5, Ferric sulfate 10421-48-4, Ferric nitrate 13537-24-1, Ferric perchlorate
 RL: AMX (Analytical matrix); ANST (Analytical study)
 (iron determination in, by electrothermal atomic absorption spectrometry, matrix effect in)

L88 ANSWER 32 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1988:83135 HCPLUS

DOCUMENT NUMBER: 108:83135

TITLE: The dynamics of water molecules in ionic solution: II. Quasi-elastic neutron scattering and tracer diffusion studies of the proton and ion dynamics in concentrated nickel(2+), copper(2+) and neodymium(3+) aqueous solutions

AUTHOR(S): Salmon, P. S.; Howells, W. S.; Mills, R.

CORPORATE SOURCE: H. H. Wills Phys. Lab., Univ. Bristol, Bristol, BS8 1TL, UK

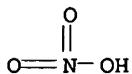
SOURCE: Journal of Physics C: Solid State Physics (1987), 20(34), 5727-47
 CODEN: JPSOAW; ISSN: 0022-3719

DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The technique of high-resolution incoherent quasi-elastic neutron scattering (QENS) is used to measure the translational diffusive motion of H₂O protons in concentrated NiX₂, CuX₂, and NdX₃ aqueous solns. in which X = Cl⁻, ClO₄⁻, and/or NO₃⁻. The technique of tracer diffusion is also used in order to measure the cation self-diffusion coefficient in concentrated NiX₂ and CuX₂ aqueous solns. in which X = Cl⁻ and ClO₄⁻. At room temperature (simeq. 25°), the cation-water proton binding times are described by the limits $\tau_1(\text{Ni}^{2+}) \approx 5 \times 10^{-9} \text{ s}$, $\tau_1(\text{Cu}^{2+}) \approx 10^{-10} \text{ s}$, and $\tau_1(\text{Nd}^{3+}) > 10^{-10} \text{ s}$ and that for the Ni²⁺ solns., which are in slow exchange, the diffusion coefficient of protons bound to the cation is measurable by using the QENS method. A 2-state model for slow exchange in which those water mols. not bound to the cation are in bulk water does not account for the observed proton diffusion in any of the solns. It is shown, however, that for Ni²⁺ solns. the proton dynamics can be described by specifying 2 addnl. environments which are identified with H₂O in the second shell of the cation and H₂O associated with the anions. In NiCl₂ solns. this model does not give rise to a second-shell

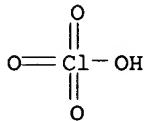
diffusion coefficient which is greater than that for pure H₂O.

IT 13138-45-9, Nickel dinitrate 13770-18-8, Copper diperchlorate
 RL: PRP (Properties)
 (diffusion and liquid structure in concentrated aqueous, neutron scattering study of)
 RN 13138-45-9 HCAPLUS
 CN Nitric acid, nickel(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Ni(II)

RN 13770-18-8 HCAPLUS
 CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

CC 68-6 (Phase Equilibria, Chemical Equilibria, and Solutions)
 IT 7447-39-4, Cupric chloride, properties 7718-54-9, Nickel dichloride, properties 10024-93-8, Neodymium trichloride 13138-45-9, Nickel dinitrate 13637-71-3, Nickel diperchlorate 13770-18-8, Copper diperchlorate
 RL: PRP (Properties)
 (diffusion and liquid structure in concentrated aqueous, neutron scattering study of)

L88 ANSWER 33 OF 45 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1986:575404 HCAPLUS
 DOCUMENT NUMBER: 105:175404
 TITLE: Eutectic microknit composite explosives
 INVENTOR(S): Jessop, Harvey A.; Abegg, M. Taylor; Peterson, John A.; Butler, Jay W.; McCormick, Ronald F.; Lavery, Ormond F.
 PATENT ASSIGNEE(S): Megabar Explosives Corp., USA
 SOURCE: U.S., 4 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	

US 4600452	A	19860715	US 1984-578179	1984 0208

PRIORITY APPLN. INFO.:

US 1984-578179

1984
0208

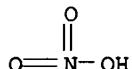
AB Solid, NH₄NO₃-based eutectic microcryst. (microknit) explosives, propellants or gas generators comprising essentially anhydrous mixts. of NH₄NO₃, soluble explosives, surfactants, hydrocarbon fuels, additives, and other non-nitrate oxidizer salts are made by 3 methods involving intimate mixing or dissoln. of the components in the molten state to a fluid in which the molten salts can be supercooled before onset of crystal nucleation and reversion from the fluid state. The 1st method involves only mixing, dissoln., and supercooling. The 2nd and 3rd methods include unstable, oil-continuous and salt-continuous emulsions, resp. Thus, an explosive prepared by dissolving ethylenediamine mononitrate monoperchlorate 40.0, sorbitan monooleate 4.0, hexylamine nitrate 2.0, and modified guar 2.0 weight% in a molten mixture of NH₄NO₃ 44.0 and KNO₃ 8.0 weight% had a d. 1.5 g/cm³ in 6.3-cm-diameter cartridges and was detonated by a 15 g booster.

IT 3251-23-8 13770-18-8

RL: USES (Uses)
(explosives and propellants and gas generators,
ammonium nitrate eutectic crystalline composites)

RN 3251-23-8 HCPLUS

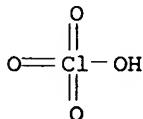
CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

RN 13770-18-8 HCPLUS

CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

IC ICM C06B045-10

INCL 149019300

CC 50-2 (Propellants and Explosives)

ST nitrate eutectic microcryst explosive propellant;
microknit eutectic composite explosive

IT Naphtha

RL: USES (Uses)
(coal-tar, in ammonium nitrate eutectic microcryst.
composite explosives and propellants and gas
generators)

IT Perlite

RL: USES (Uses)
(d.-control and sensitizing agents, in ammonium nitrate
eutectic microcryst. composite explosives)

and propellants and gas generators)

IT Polyacetylenes
Polyesters, uses and miscellaneous
Polyethers
Polysulfides
RL: USES (Uses)
(fuels, in ammonium nitrate eutectic microcryst.
composite explosives and propellants and gas
generators)

IT Gases
(generation of, ammonium nitrate microcryst. eutectic
compns. for)

IT Hydrocarbon oils
RL: USES (Uses)
(in ammonium nitrate eutectic microcryst. composite
explosives and propellants and gas generators)

IT Perfluorocarbons
RL: USES (Uses)
(poly-, fuels, in ammonium nitrate eutectic microcryst.
composite explosives and propellants and gas
generators)

IT Alkanes, polymers
Phenols, polymers
RL: USES (Uses)
(polymers, fuels, in ammonium nitrate eutectic microcryst.
composite explosives and propellants and gas
generators)

IT Explosives
Propellants
(composite, ammonium nitrate microcryst. eutectic)

IT Amines, uses and miscellaneous
RL: USES (Uses)
(hydrogenated tallow alkyl, in ammonium nitrate eutectic
microcryst. composite explosives and
propellants and gas generators)

IT Alkenes, uses and miscellaneous
Amines, uses and miscellaneous
RL: USES (Uses)
(poly-, fuels, in ammonium nitrate eutectic microcryst.
composite explosives and propellants and gas
generators)

IT 27178-87-6
RL: USES (Uses)
(crystal habit modifiers, in ammonium nitrate eutectic
microcryst. composite explosives and
propellants and gas generators)

IT 7757-79-1P, preparation 7778-74-7P 7779-88-6P 7790-69-4P
7790-98-9P 3251-23-8 10099-74-8 10377-66-9
13637-61-1 13637-76-8 13770-16-6 13770-18-8
RL: PREP (Preparation)
(explosives and propellants and gas generators,
ammonium nitrate eutectic crystalline composites)

IT 6484-52-2P, preparation
RL: PREP (Preparation)
(explosives and propellants and gas generators,
eutectic microcryst. composite)

IT 9003-53-6
RL: USES (Uses)
(fuels, in ammonium nitrate eutectic microcryst.
composite explosives and propellants and gas
generators)

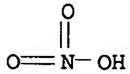
IT 60676-86-0
RL: USES (Uses)
(fume, d.-control and sensitizing agent, in ammonium nitrate
eutectic microcryst. composite explosives
and propellants and gas generators)

IT 1338-43-8 3414-89-9 9000-30-0 14999-73-6 20829-66-7
 24979-97-3 25155-30-0 37836-27-4 99661-21-9 99684-85-2
 RL: USES (Uses)
 (in ammonium nitrate eutectic microcryst. composite
 explosives and propellants and gas generators)

L88 ANSWER 34 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1986:151889 HCPLUS
 DOCUMENT NUMBER: 104:151889
 TITLE: Soft composite explosives
 INVENTOR(S): Abegg, M. Taylor; Peterson, John A.; Jessop, Harvey A.
 PATENT ASSIGNEE(S): Megabar Explosives Corp., USA
 SOURCE: U.S., 4 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

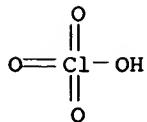
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
US 4552597	A	19851112	US 1984-641687	1984 0817
PRIORITY APPLN. INFO.:			US 1984-641687	1984 0817

OTHER SOURCE(S): MARPAT 104:151889
 AB Essentially anhydrous, soft grease-like, stable, composite explosives with \leq 3 weight% moisture and O balance +5 to -50% are prepared as melt-in-fuel emulsions in which the discontinuous phase is a eutectic mixture comprising NH₄NO₃, \geq 1 oxidizer salts, and \geq 1 soluble compds. and the continuous phase is an emulsifier-fuel mixture and comprises <2.5 weight% of the composition. Thus, a compn consisting of NH₄NO₃ 67.0, KNO₃ 14.0, KCLO₄ 5.0, glycerin 10.0, sorbitan monooleate 0.4, oleylamine linoleate 0.4, mineral oil 1.2, and microspheres 2.0 weight% had grease-like consistency at 20°, d. 1.25 g/cm³, and was detonated in 3.8 cm sizes.
 IT 3251-23-8 13770-18-8
 RL: USES (Uses)
 (oxidizers, in ammonium nitrate grease-like emulsion explosives)
 RN 3251-23-8 HCPLUS
 CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

RN 13770-18-8 HCPLUS
 CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

IC ICM C06B045-00
 INCL 149002000
 CC 50-2 (Propellants and Explosives)
 ST ammonium nitrate grease like explosive
 IT Explosives
 (emulsion-melt-in-fuel, ammonium nitrate-based grease-like)
 IT Hydrocarbon oils
 Perlite
 RL: USES (Uses)
 (explosives containing, in grease-like ammonium
 nitrate-based emulsion)
 IT Emulsions
 (melt-in-fuel explosive, ammonium nitrate-based,
 grease-like)
 IT Spheres
 (micro-, explosives, grease-like ammonium
 nitrate-based emulsion)
 IT 56-81-5, uses and miscellaneous 151-21-3, uses and miscellaneous
 1338-43-8 3414-89-9 7757-79-1, uses and miscellaneous
 7778-74-7 7790-98-9 18423-20-6 20256-00-2 20748-72-5
 20829-66-7 38482-52-9 101559-65-3 101559-66-4
 RL: USES (Uses)
 (explosives, grease-like ammonium nitrate-based
 emulsion)
 IT 6484-52-2, uses and miscellaneous
 RL: USES (Uses)
 (explosives, melt-in-fuel emulsion, grease-like)
 IT 7631-86-9, uses and miscellaneous
 RL: USES (Uses)
 (fume, in ammonium nitrate grease-like emulsion
 explosives)
 IT 3251-23-8 7779-88-6 10099-74-8 10377-66-9
 13637-61-1 13637-76-8 13770-16-6 13770-18-8
 RL: USES (Uses)
 (oxidizers, in ammonium nitrate grease-like emulsion
 explosives)

L88 ANSWER 35 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1980:97818 HCPLUS
 DOCUMENT NUMBER: 92:97818
 TITLE: Corrosion-retarding composition
 PATENT ASSIGNEE(S): Dow Chemical Co., USA
 SOURCE: Neth. Appl., 33 pp.
 CODEN: NAXXAN
 DOCUMENT TYPE: Patent
 LANGUAGE: Dutch
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	

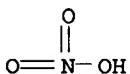
NL 7712284	A	19790510	NL 1977-12284	1977

PRIORITY APPLN. INFO.:	NL 1977-12284	A	1108
			1977
			1108

AB A corrosion-retarding composition for ferrous metals contains an alkanolamine, CuS or a Cu salt, and a source of S atoms, such as H₂S, S, or COS in combination with an oxidant. In acid-gas scrubbing adsorption solns., S is set free, partly as polysulfide. Optionally, the alkanolamine is RR₁NCR₂CR₂OH (R and R₁ = H or CR₂CR₂OH; R₂ = H or C₁-3 alkyl). Thus, AISI 1010 [12725-33-6] steel had an inhibition efficiency of 96% in aqueous 80% monoethanolamine [141-43-5] saturated with H₂S at room temperature and containing CuS and KMnO₄ each 1000 ppm.

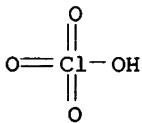
IT 3251-23-8 13770-18-8 38465-60-0
 RL: USES (Uses)
 (alkanolamine corrosion inhibitors containing, for steel in gas scrubbers)

RN 3251-23-8 HCPLUS
 CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



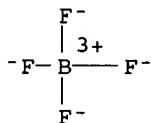
●1/2 Cu(II)

RN 13770-18-8 HCPLUS
 CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

RN 38465-60-0 HCPLUS
 CN Borate(1-), tetrafluoro-, copper(2+) (2:1) (9CI) (CA INDEX NAME)



●1/2 Cu(II) ²⁺

IC C23F011-08
 CC 55-9 (Ferrous Metals and Alloys)
 IT 142-71-2 533-01-7 584-08-7 660-60-6 814-91-5 1308-09-4
 1313-60-6 1317-39-1, uses and miscellaneous 1317-40-4

3251-23-8 7447-39-4, uses and miscellaneous 7553-56-2,
 uses and miscellaneous 7631-90-5 7681-11-0, uses and
 miscellaneous 7704-34-9, uses and miscellaneous 7722-64-7
 7722-84-1, uses and miscellaneous 7726-95-6, uses and
 miscellaneous 7727-21-1 7727-54-0 7758-05-6 7775-09-9
 7789-38-0 7789-45-9 7789-80-2 7790-21-8 7790-28-5
 10118-76-0 10588-01-9 11138-47-9 12134-35-9 13444-71-8
 13587-35-4 13767-34-5 13767-71-0 13770-18-8
 14220-26-9 14446-13-0 15061-57-1 16712-25-7 22205-45-4
 23414-72-4 36386-77-3 38465-60-0

RL: USES (Uses)
 (alkanolamine corrosion inhibitors containing, for steel in gas
 scrubbers)

L88 ANSWER 36 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1979:190718 HCPLUS

DOCUMENT NUMBER: 90:190718

TITLE: Composition for inhibiting the
 corrosion of ferrous metals

INVENTOR(S): Asperger, Robert G.; Krawczyk, Leroy S.;
 Oakes, Billy D.

PATENT ASSIGNEE(S): Dow Chemical Co., USA

SOURCE: U.S., 11 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
US 4143119	A	19790306	US 1977-807089	1977 0616
CA 1080956	A1	19800708	CA 1977-289921	1977 1031
PRIORITY APPLN. INFO.:			US 1976-648620	A2 1976 0112
			US 1977-807089	A 1977 0616

AB Cu-containing corrosion inhibitors are used for steels in contact with acid gases, such as H₂S, CO₂, and COS, in acid gas removal from sour gas. Cu or Cu compds. and S or S compds. are maintained in solution, such as Cu sulfide dissolved in aqueous alkanolamine or monoethanolamine [141-43-5] solution used for acid gas removal from natural or synthetic gases. The absorbents for acid-gas stripping are RR1NC2R42OH (R, R1 H or CR23CR22OH; R2H or C1-3 alkyl) alone or in combination with sulfolane [126-33-0], K₂CO₃, or diglycolamines. The preferred absorbents when only CO₂ is present are monoethanolamine, diisopropanolamine [110-97-4] with sulfolane, diethanolamine [111-42-2], diglycolamine [533-01-7], and Methicoll [623-57-4] in aqueous solns. Oxidizing agents, such as S, KMnO₄, NaMnO₄, Ca(MnO₄)₂, Sr(MnO₄)₂, Zn(MnO₄)₂, K or Na persulfate, KIO₃, Ca(IO₃)₂, NaBrO₃, Na₂Cr₂O₇, K₂Cr₂O₇, O, H₂O₂, and Na₂O₂ to produce S from H₂S dissolved in the absorbent. Thus, AISI 1010 [12725-33-6] coupon was immersed in aqueous 80% monoethanolamine solution saturated with H₂S at room temperature and used for stripping acid gases at 120° from the absorbent for 15 h and had an inhibition efficiency of 96% when CuS and KMnO₄ each 1000 ppm were added.

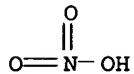
IT 3251-23-8 13770-18-8 38465-60-0

RL: USES (Uses)

(corrosion inhibition of steels in solution containing, in acid gas
stripping from natural and synthetic fuel gases)

RN 3251-23-8 HCAPLUS

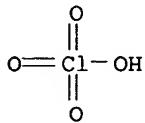
CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

RN 13770-18-8 HCAPLUS

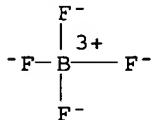
CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

RN 38465-60-0 HCAPLUS

CN Borate(1-), tetrafluoro-, copper(2+) (2:1) (9CI) (CA INDEX NAME)



●1/2 Cu(II) 2+

IC B01D053-34

INCL 423226000

CC 55-9 (Ferrous Metals and Alloys)

Section cross-reference(s): 51

IT 142-71-2 533-01-7 598-54-9 1303-92-0 1308-09-4
 1317-38-0, uses and miscellaneous 1317-40-4 3251-23-8
 7057-72-9 7447-39-4, uses and miscellaneous 7617-31-4
 7758-98-7, uses and miscellaneous 7789-45-9 12643-19-5
 12771-00-5 13395-16-9 13767-34-5 13767-71-0
 13770-18-8 16712-25-7 22205-45-4 36386-77-3
 38465-60-0 40974-00-3 70283-75-9

RL: USES (Uses)

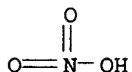
(corrosion inhibition of steels in solution containing, in acid gas
stripping from natural and synthetic fuel gases)

L88 ANSWER 37 OF 45 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1978:519686 HCAPLUS

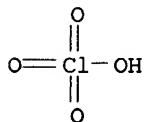
DOCUMENT NUMBER: 89:119686

TITLE: An electrochemical study of copper(II) nitrate and perchlorate in N,N-dimethylformamide
 AUTHOR(S): Braun, Robert D.
 CORPORATE SOURCE: Dep. Chem., Univ. Southwestern Louisiana, Lafayette, LA, USA
 SOURCE: Analytica Chimica Acta (1978), 99(2), 325-31
 CODEN: ACACAM; ISSN: 0003-2670
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Polarog., cyclic voltammetric and controlled-potential coulometric studies of Cu(II) nitrate and perchlorate in DMF are reported. Cu(II) in perchlorate solns. is directly reduced in a 2-electron step to Cu metal at Pt electrodes and to a Cu amalgam at Hg electrodes. Cu(II) in the presence of nitrate forms a complex of composition Cu(NO₃)₂ in DMF; the dissociation constant, measured polarog., is 9 + 10⁻⁵. The Cu(II) nitrate complex is electrochem. reduced in 2 steps consisting of a reversible dissociation of the complex followed by direct reduction of Cu(II) ion to Cu. The diffusion coeffs. of Cu(II) ion and the Cu(II) nitrate complex are 4.91 + 10⁻⁶ cm² s⁻¹ and 4.33 + 10⁻⁶ cm² s⁻¹, resp.
 IT 3251-23-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reduction of, electrochem., on mercury and platinum in DMF, concentration in relation to)
 RN 3251-23-8 HCAPLUS
 CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



● 1/2 Cu(II)

IT 13770-18-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reduction of, electrochem., on mercury and platinum, in DMF)
 RN 13770-18-8 HCAPLUS
 CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



● 1/2 Cu(II)

CC 72-11 (Electrochemistry)
 IT 3251-23-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reduction of, electrochem., on mercury and platinum in DMF, concentration in relation to)
 IT 13770-18-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reduction of, electrochem., on mercury and platinum, in DMF)

L88 ANSWER 38 OF 45 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1978:480997 HCPLUS
 DOCUMENT NUMBER: 89:80997
 TITLE: Ion solvation and ion association in
 electrolyte-containing solvent
 mixtures
 AUTHOR(S): Decker, Ulrich; Hahn, Rainer; Rudakoff, Georg
 CORPORATE SOURCE: Sekt. Verfahrenschem., Tech. Hochsch. "Carl
 Schorlemmer", Leuna-Merseberg, Ger. Dem. Rep.
 SOURCE: Zeitschrift fuer Physikalische Chemie
 (Leipzig) (1978), 259(3), 497-512
 DOCUMENT TYPE: Journal
 LANGUAGE: German

AB Changes in extinction coeffs., elec. conductivity, viscosity, Walden
 product, excess volume, and NMR shifts were used to calculate ion
 association and solvation equilibrium consts. for various salts (LiCl,
 CuCl₂, Ni(NO₃)₂, Co(NO₃)₂, CoCl₂, NiCl₂, Cu(ClO₄)₂, NiSO₄, CuSO₄,
 NaCl, KCl, LiBr, KBr, NaBr, NaI, KI) in aqueous EtOH or aqueous Me₂CO.

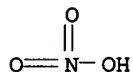
IT 10141-05-6 13138-45-9 13770-18-8

RL: PRP (Properties)

(ion association and solvation equilibrium of, in aqueous acetone)

RN 10141-05-6 HCPLUS

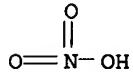
CN Nitric acid, cobalt(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Co(II)

RN 13138-45-9 HCPLUS

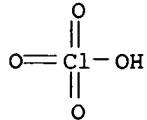
CN Nitric acid, nickel(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Ni(II)

RN 13770-18-8 HCPLUS

CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

CC 68-4 (Phase Equilibria, Chemical Equilibria, and Solutions)

IT 7646-79-9, properties 7718-54-9, properties 7758-98-7,

properties 7786-81-4 10141-05-6 13138-45-9

13770-18-8

RL: PRP (Properties)
(ion association and solvation equilibrium of, in aqueous acetone)

L88 ANSWER 39 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1968:31280 HCPLUS

DOCUMENT NUMBER: 68:31280

TITLE: Wood preservatives

PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.

SOURCE: Brit., 6 pp.

CODEN: BRXXAA

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
GB 1091998		19671122	GB	
DE 1492509			DE	
FR 1496647			FR	
PRIORITY APPLN. INFO.:			DE	
				1965
				1015
			DE	
				1966
				0407

AB A preservative having high effectiveness, low corrosive action, and desirably slow fixation in the wood contains as active ingredients Cu and (or) Zn compds., a complex fluoride, and a compound of Cr(VI) with an atomic ratio of Cr(VI) to F \geq 3:6. Preferred composition ranges are 6-15% Cu and (or) Zn, 10-20% F, and 20-30% Cr(VI), with Cr(VI)-F = 4-5:6. In an example, a formulation containing 44.0% CuSiF₆.6H₂O and 56.0% Cr₂O₃ gave a weight loss of 0.8-15.6 g./sq. m. on Fe in a 15-day corrosion cycle in concns. of 2-20%. When pine sapwood is fully impregnated with a 4% solution, 40% of the Cu and 50% of the F are leached according to DIN Standard 52176. Threshold retention of the preservative, after leaching, against Basidiomycetes is 6 kg./m.³, against dry-rot fungi 11 kg./m.³

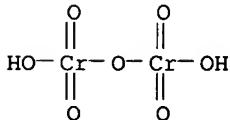
IT 7789-09-5 38465-60-0

RL: USES (Uses)

(as preservative, for wood)

RN 7789-09-5 HCPLUS

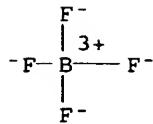
CN Chromic acid (H₂Cr₂O₇), diammonium salt (9CI) (CA INDEX NAME)



●2 NH₃

RN 38465-60-0 HCPLUS

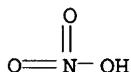
CN Borate(1-), tetrafluoro-, copper(2+) (2:1) (9CI) (CA INDEX NAME)



● 1/2 Cu(II) 2+

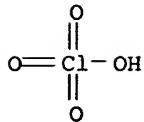
IC A01N
 CC 43 (Cellulose, Lignin, Paper, and Other Wood Products)
 ST DRY ROT PRESERVATIVES; FUNGICIDES WOOD; WOOD
 PRESERVATIVES; COPPER WOOD PRESERVATIVES; ZINC
 WOOD PRESERVATIVES; PRESERVATIVES WOOD
 IT Wood preservatives
 (fluorine-containing inorg. salts as)
 IT 1308-38-9, uses and miscellaneous 1317-38-0, uses and
 miscellaneous 1341-49-7 7758-99-8 7789-09-5
 12021-69-1 16949-65-8 18433-42-6 18972-56-0 26062-07-7
 38465-60-0
 RL: USES (Uses)
 (as preservative, for wood)

L88 ANSWER 40 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1968:25267 HCPLUS
 DOCUMENT NUMBER: 68:25267
 TITLE: Copper(II) cyanate complexes in acetone
 AUTHOR(S): Valtr, Zdenek; Quastlerova, M.
 CORPORATE SOURCE: Tech. Univ., Bratislava, Czech.
 SOURCE: Zeitschrift fuer Chemie (1966), 6(9), 348
 CODEN: ZECEAL; ISSN: 0044-2402
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 AB The absorption spectra of a mixture of CuCl₂, Cu(NO₃)₂, or Cu(ClO₄)₂ and an increasing amount of LiOCN were measured to study the formation of Cu(II) cyanato complexes in Me₂CO. The dependence of the absorption on the composition of the isomolar solns. (Job's curve) for the system CuCl₂-LiOCN-Me₂CO shows an absorption maximum at 475 m μ and the formation of the complex with the mole ratio Cu²⁺:OCN⁻ = 1:1.5.
 IT 3251-23-8 13770-18-8
 RL: PRP (Properties) /
 (spectrum (visible and uv) of lithium cyanate mixts. with,
 complex formation in relation to)
 RN 3251-23-8 HCPLUS
 CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



● 1/2 Cu(II)

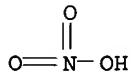
RN 13770-18-8 HCPLUS
 CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

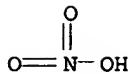
CC 73 (Spectra and Other Optical Properties)
 IT 3251-23-8 7447-39-4, properties 13770-18-8
 RL: PRP (Properties)
 (spectrum (visible and uv) of lithium cyanate mixts. with,
 complex formation in relation to)

L88 ANSWER 41 OF 45 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1964:401324 HCAPLUS
 DOCUMENT NUMBER: 61:1324
 ORIGINAL REFERENCE NO.: 61:194g-h
 TITLE: A Raman spectrophotometric comparison of
 interionic association in aqueous solutions of
 metal nitrates, sulfates, and perchlorates
 AUTHOR(S): Hester, R. E.; Plane, R. A.
 CORPORATE SOURCE: Cornell Univ., Ithaca, NY
 SOURCE: Inorg. Chem. (1964), 3(5), 769-70
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 AB In a general study of metal oxyanion assocns. in aqueous solns., Raman
 spectra of near-saturated aqueous solns. of metal nitrates, sulfates, and
 perchlorates showed that complexes were more usual for nitrates
 than sulfates, and were not observed for perchlorates. Except for
 In, complexes of sulfates were solvent separated. New frequencies
 arising from complexes of nitrates were given a C2v point
 assignment. The order of dissymmetry in nitrates was Th4+ > In3+
 > Cu2+ > Hg2+ > Ce3+ > Ca2+, Al3+, Ag+, Na+, K+, NH4+.
 Detns. of M intensities of the v1(A1) lines for sulfate and
 perchlorate ions indicated spectral constancy. The latter ion was
 endorsed for use as an internal standard for Raman line intensity
 measurements under usual aqueous conditions.
 IT 3251-23-8, Copper nitrate, Cu(NO₃)₂ 10108-73-3,
 Cerium nitrate, Ce(NO₃)₃ 13770-18-8, Copper perchlorate,
 Cu(ClO₄)₂
 (spectrum (Raman) of, interionic association and)
 RN 3251-23-8 HCAPLUS
 CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



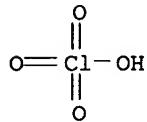
●1/2 Cu(II)

RN 10108-73-3 HCAPLUS
 CN Nitric acid, cerium(3+) salt (8CI, 9CI) (CA INDEX NAME)



● 1/3 Ce(III)

RN 13770-18-8 HCPLUS
 CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



● 1/2 Cu(II)

CC 10 (Spectra and Some Other Optical Properties)
 IT 3251-23-8, Copper nitrate, Cu(NO₃)₂ 6484-52-2, Ammonium nitrate 7446-18-6, Thallium sulfate, Tl₂SO₄ 7487-88-9, Magnesium sulfate 7601-89-0, Sodium perchlorate 7601-90-3, Perchloric acid 7616-83-3, Mercury perchlorate, Hg(ClO₄)₂ 7733-02-0, Zinc sulfate 7757-79-1, Potassium nitrate 7757-82-6, Sodium sulfate, Na₂SO₄ 7758-98-7, Copper sulfate 7761-88-8, Silver nitrate 7779-88-6, Zinc nitrate 7783-20-2, Ammonium sulfate 7783-93-9, Silver perchlorate, AgClO₄ 7791-03-9, Lithium perchlorate 10043-01-3, Aluminum sulfate 10045-94-0, Mercury nitrate, Hg(NO₃)₂ 10108-73-3, Cerium nitrate, Ce(NO₃)₃ 10124-36-4, Cadmium sulfate 10124-37-5, Calcium nitrate 13464-82-9, Indium sulfate, In₂(SO₄)₃ 13473-90-0, Aluminum nitrate 13477-36-6, Calcium perchlorate 13529-74-3, Indium perchlorate, In(ClO₄)₃ 13597-95-0, Beryllium perchlorate 13637-76-8, Lead perchlorate, Pb(ClO₄)₂ 13770-18-8, Copper perchlorate, Cu(ClO₄)₂ 13770-61-1, Indium nitrate, In(NO₃)₃ 13823-29-5, Thorium nitrate, Th(NO₃)₄ 14017-46-0, Lanthanum perchlorate, La(ClO₄)₃ 14017-47-1, Cerium perchlorate, Ce(ClO₄)₃ 14452-39-2, Aluminum perchlorate 16045-17-3, Thorium perchlorate, Th(ClO₄)₄ 34781-33-4, Gallium sulfate
 (spectrum (Raman) of, interionic association and)
 IT 10034-81-8, Magnesium perchlorate
 (tetrafluoroethylene polymer molding compns.)

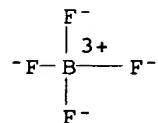
L88 ANSWER 42 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1963:447430 HCPLUS
 DOCUMENT NUMBER: 59:47430
 ORIGINAL REFERENCE NO.: 59:8514a-c
 TITLE: Isolation of monoolefins by means of metallic salt solutions
 AUTHOR(S): Krekeler, Hans W.; Hirschbeck, Josef M.; Schwenk, Ulrich
 CORPORATE SOURCE: Farbwerke Hoechst A.-G., Frankfurt a.M.-Hoechst, Germany
 SOURCE: Erdoel und Kohle (1963), 16(6-I), 551-60
 CODEN: ERKOAJ; ISSN: 0367-1305
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 AB Recent developments by Farbwerke Hoechst in the recovery of

monoolefins, especially C₂H₄ and C₃H₆, by using Cu⁺ complex and Ag⁺ solns. are reviewed. The reversible absorption of olefins increases with their partial pressure and with increasing concentration of the metal salt up to a limiting value. For Cu⁺, the best anion is NO₃ and the best complex components are morpholine, HOCH(Me)CH₂NH₂, or HOC₂H₄NH₂. The best anion for Ag⁺ is excess BF₄⁻, which is better than ClO₄⁻. Cu⁺ solns. have a lower olefin capacity than Ag⁺ solns. because they give lower metal concns. They absorb olefins in different amts., e.g. more C₂H₄ than C₃H₆, but Ag⁺ salts absorb all olefins at the same high rate. CO is strongly absorbed by Cu⁺ solns., while Ag⁺ solns. do so only slightly. Experiences in recovery of olefins from both exptl. and production plants are given with respect to concns., viscosities, and stabilities of the absorbing solns., problems of material and corrosion, toxicological aspects, temperature and pressure conditions, and the influence of other gases (CO, H, H₂S, CO₂, C₂H₂, O, hydrocarbons). Production processes are described for separating olefins from cracked gas by use of an ethanolamine-CuNO₃ solution, for reconcn. of pure C₃H₆ or C₂H₄ from H-free waste gas by an AgBF₄ solution containing HBF₄, and for recovering C₂H₄ from H-containing waste gas by a AgBF₄ solution containing H₂O₂ and HBF₄. Combinations of the new processes with known separation processes are considered and possible applications are discussed.

IT 14104-20-2, Silver tetrafluoroborate, Ag[BF₄]
(olefin absorption by)

RN 14104-20-2 HCPLUS

CN Borate(1-), tetrafluoro-, silver(1+) (8CI, 9CI) (CA INDEX NAME)

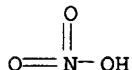


● Ag(I) +

IT 3251-29-4, Copper nitrate, CuNO₃
(olefin absorption by ethanolamine and)

RN 3251-29-4 HCPLUS

CN Nitric acid, copper(1+) salt (9CI) (CA INDEX NAME)



● Cu(I)

CC 27 (Petroleum and Petroleum Derivatives)

IT 14104-20-2, Silver tetrafluoroborate, Ag[BF₄]
(olefin absorption by)

IT 3251-29-4, Copper nitrate, CuNO₃
(olefin absorption by ethanolamine and)

L88 ANSWER 43 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1961:26746 HCPLUS

DOCUMENT NUMBER: 55:26746

ORIGINAL REFERENCE NO.: 55:5212h-i,5213a

TITLE: The reaction of copper with suspensions of nitrosyl perchlorate
 AUTHOR(S): Hathaway, B. J.; Underhill, A. E.
 CORPORATE SOURCE: Univ. Hull, UK
 SOURCE: Journal of the Chemical Society, Abstracts (1960) 3705-11
 CODEN: JCSAAZ; ISSN: 0590-9791

DOCUMENT TYPE: Journal

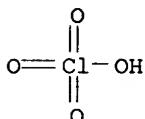
LANGUAGE: Unavailable

AB Nitrosyl perchlorate reacts with Cu, when suspended in certain organic solvents, such as EtOAc or MeCN, according to the equation: Cu + 2NO+ClO₄⁻ = Cu(ClO₄)₂ + 2NO. If the reaction is carried out at atmospheric pressure, the product is contaminated with Cu(NO₃)₂, but under reduced pressure, a solution of the pure perchlorate is obtained. In the presence of moisture, the solns. became turbid and precipitated gelatinous basic Cu perchlorate. The Cu(ClO₄)₂ is monomeric in boiling EtOAc, but some dissociation occurs in boiling MeCN. Elec. conductivity, visible and UV spectra have been measured with the perchlorate solns., and the IR absorption spectra of solid complexes, such as Cu(ClO₄)₂.4MeCN are discussed. Attempts to prepare pure anhydrous Cu(ClO₄)₂ were unsuccessful.

IT 13770-18-8, Copper perchlorate
 (and basic perchlorates, from Cu reaction with NOClO₄)

RN 13770-18-8 HCPLUS

CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)

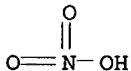


●1/2 Cu(II)

IT 3251-23-8, Copper nitrate, Cu(NO₃)₂
 (formation from Cu and NOClO₄)

RN 3251-23-8 HCPLUS

CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

CC 6 (Inorganic Chemistry)

IT 13770-18-8, Copper perchlorate
 (and basic perchlorates, from Cu reaction with NOClO₄)

IT 3251-23-8, Copper nitrate, Cu(NO₃)₂
 (formation from Cu and NOClO₄)

L88 ANSWER 44 OF 45 HCPLUS COPYRIGHT 2006 ACS on STN

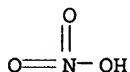
ACCESSION NUMBER: 1958:43620 HCPLUS

DOCUMENT NUMBER: 52:43620

ORIGINAL REFERENCE NO.: 52:7819i,7820a-b

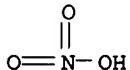
TITLE: The complex structure and the solvent effect
 on the extractive separation of inorganic

AUTHOR(S): compounds. I. Extraction of bivalent metal nitrates and perchlorates
 Libus, Włodzimierz; Siekierska, Maria; Libus, Zofia
 CORPORATE SOURCE: Polska Akad. Nauk, Warsaw
 SOURCE: Roczniki Chemii (1957), 31, 1293-1302
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB It is supposed that the partition coeffs. α of individual complex compds. depend almost exclusively on the kind and number of the coordinate ligands and the formal charge of the complex ions, but to a lesser degree on the nature of the central ion. Knowledge of the structure and composition of the complexes in both phases (water-organic solvent) suffices for a suitable choice of solvent. Extraction curves of Co, Ni, and Cu nitrates by butyl, amyl, isoamyl, hexyl, and octyl alcs. were determined. The solute in the organic solvent was mainly composed of ionized salts with hydrated cation. The extraction curves change slightly for different cations, but considerably for different solvents. The values of α of bivalent Co, Ni, Cu, Mn, Zn, Mg, Ca, and Sr perchlorates in water and BuOH are, resp.: 7.2, 7.7, 6.9, 7.6, 8.3, 9.4, 9.5, and 12.9 ± 0.5 . They are almost equal for equal initial concns. of the salts in water.
 IT 13138-45-9, Nickel nitrate, Ni(NO₃)₂
 (extraction by alcs.)
 RN 13138-45-9 HCPLUS
 CN Nitric acid, nickel(2+) salt (8CI, 9CI) (CA INDEX NAME)



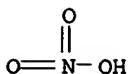
●1/2 Ni(II)

IT 3251-23-8, Copper nitrate, Cu(NO₃)₂ 10141-05-6,
 Cobalt nitrate, Co(NO₃)₂
 (extraction of, by alcs.)
 RN 3251-23-8 HCPLUS
 CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



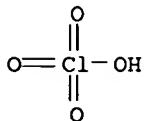
●1/2 Cu(II)

RN 10141-05-6 HCPLUS
 CN Nitric acid, cobalt(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Co(II)

IT 13770-18-8, Copper perchlorate, Cu(ClO₄)₂
(partition between BuOH and H₂O)
RN 13770-18-8 HCAPLUS
CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

CC 2 (General and Physical Chemistry)
IT 13138-45-9, Nickel nitrate, Ni(NO₃)₂
(extraction by alc.)
IT 3251-23-8, Copper nitrate, Cu(NO₃)₂ 10141-05-6,
Cobalt nitrate, Co(NO₃)₂
(extraction of, by alc.)
IT 10034-81-8, Magnesium perchlorate, Mg(ClO₄)₂ 13450-97-0,
Strontium perchlorate 13455-31-7, Cobalt perchlorate, Co(ClO₄)₂
13477-36-6, Calcium perchlorate 13637-61-1, Zinc perchlorate
13637-71-3, Nickel perchlorate, Ni(ClO₄)₂ 13770-16-6, Manganese
perchlorate, Mn(ClO₄)₂ 13770-18-8, Copper perchlorate,
Cu(ClO₄)₂
(partition between BuOH and H₂O)

L88 ANSWER 45 OF 45 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1957:75513 HCAPLUS

DOCUMENT NUMBER: 51:75513

ORIGINAL REFERENCE NO.: 51:13568g-h

TITLE: Solvation of copper and cobalt ions in
alcohol-water mixtures. II.
Absorption spectra of copper and cobalt
nitrates in water and absolute aliphatic
alcohols

AUTHOR(S): Minc, Stefan; Libus, Włodzimierz

SOURCE: Roczniki Chem. (1956), 30, 537

DOCUMENT TYPE: Journal

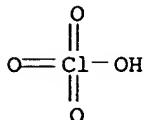
LANGUAGE: English

AB cf. C.A. 51, 2391c. Extinction curves of Cu++ and Co+++ nitrates
in H₂O and absolute aliphatic alc. were determined. It was established
that the changes in spectra are caused by the changes of the
composition of the solvation cation layers. The following
conclusions are drawn: the tested solns. have optical stability
within the range of low concns.; copper perchlorate has a spectrum
identical with Cu++ nitrate in water or EtOH.; addition of large
vols. of nonpolar solvents (e.g., benzene) to the alc. solution of
the salt does not change its absorption spectrum.

IT 13770-18-8, Copper perchlorate, Cu(ClO₄)₂
(spectrum of, in H₂O and absolute aliphatic alc.)

RN 13770-18-8 HCAPLUS

CN Perchloric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)

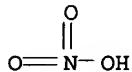


●1/2 Cu(II)

IT 10141-05-6, Cobalt nitrate, Co(NO₃)₂
(spectrum of, in aqueous alc. solns.)

RN 10141-05-6 HCPLUS

CN Nitric acid, cobalt(2+) salt (8CI, 9CI) (CA INDEX NAME)

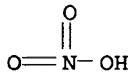


●1/2 Co(II)

IT 3251-23-8, Copper nitrate, Cu(NO₃)₂
(spectrum of, in water and absolute aliphatic alcs.)

RN 3251-23-8 HCPLUS

CN Nitric acid, copper(2+) salt (8CI, 9CI) (CA INDEX NAME)



●1/2 Cu(II)

CC 3 (Electronic Phenomena and Spectra)

IT 13770-18-8, Copper perchlorate, Cu(ClO₄)₂
(spectrum of, in H₂O and absolute aliphatic alcs.)

IT 10141-05-6, Cobalt nitrate, Co(NO₃)₂
(spectrum of, in aqueous alc. solns.)

IT 3251-23-8, Copper nitrate, Cu(NO₃)₂
(spectrum of, in water and absolute aliphatic alcs.)

=> => d 187 1-28 ti au

L87 ANSWER 1 OF 28 HCPLUS COPYRIGHT 2006 ACS on STN

TI Silver under-layers for electroless cobalt alloys

IN Lopatin, Sergey D.; Shanmugasundrum, Arulkumar; Shacham-diamond, Yosef

L87 ANSWER 2 OF 28 HCPLUS COPYRIGHT 2006 ACS on STN

TI Organometallic precursor **composition** and method of forming metal film or pattern using the same

IN Hwang, Euk Che; Lee, Sang Yoon; Byun, Young Hun; Ryu, Joon Sung; Son, Hae Jung

L87 ANSWER 3 OF 28 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Gas-Phase Ion/Ion Reactions of Multiply Protonated Polypeptides with Metal-Containing Anions
AU Newton, Kelly A.; Amunugama, Ravi; McLuckey, Scott A.

L87 ANSWER 4 OF 28 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Relationship between the Ratio of Ligand to Metal and the Coordinating Ability of Anions. Synthesis and Structural Properties of AgX-Bearing Bis(4-pyridyl)dimethylsilane (X- = NO2-, NO3-, CF3SO3-, and PF6-)
AU Lee, Jung Woon; Kim, Eun Ae; Kim, Yun Ju; Lee, Young-A.; Pak, Youngshang; Jung, Ok-Sang

L87 ANSWER 5 OF 28 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Unusual separation property of propylene/propane mixtures through polymer/silver complex membranes containing mixed salts
AU Kim, Jong Hak; Park, Su Mi; Won, Jongok; Kang, Yong Soo

L87 ANSWER 6 OF 28 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Corrosion resistant coatings with good adhesion to metals
IN Stoffer, James; O'Keefe, Thomas; Morris, Eric; Yu, Pu; Hayes, Scott A.

L87 ANSWER 7 OF 28 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Deposition products and medical composite materials
IN Djokic, Stojan

L87 ANSWER 8 OF 28 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Process for the separation of olefins from paraffins using permselective membranes
IN Herrera, Patricio S.; Feng, Xianshe; Payzant, John Donald; Kim, Jeong-hoon

L87 ANSWER 9 OF 28 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Method for preparing lanthanide-containing epoxy polymer for optics and quantum electronics
IN Amirova, L. M.; Fomin, V. P.; Amirov, R. R.; Andrianov, S. N.

L87 ANSWER 10 OF 28 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Silver or copper compound-activated adsorbents for separation of unsaturated hydrocarbons from gas mixtures
IN Choudary, Nettem Venkateswarlu; Kumar, Prakash; Puranik, Vijayalakshmi Ravi; Bhat, Sodankur Garadi Thirumaleshwara

L87 ANSWER 11 OF 28 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Analysis of the glass transition behavior of polymer-salt complexes: An extended configurational entropy model
AU Kim, Jong Hak; Min, Byoung Ryul; Won, Jongok; Kang, Yong Soo

L87 ANSWER 12 OF 28 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Electroless metallization of non-conductive plastic surfaces using tin sensitizer and silver catalyst
IN Joshi, Nayan H.

L87 ANSWER 13 OF 28 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Polymer composites containing nanometer metal granules and manufacturing methods therefor
IN Won, Jeon Ok; Kang, Yon Soo; Chung, Bom Sok; Yoon, Yo Sang

L87 ANSWER 14 OF 28 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Method for producing trimer of indole derivative by oxidative cyclotrimerization of indole derivative, and trimer of indole derivative and laminated structure thereof
IN Maeda, Shinichi; Momose, Fumino; Saitoh, Yoshikazu; Saitoh, Takashi

L87 ANSWER 15 OF 28 HCPLUS COPYRIGHT 2006 ACS on STN
TI Light-transforming polymeric composition
IN Anisimov, V. M.; Anisimova, O. M.; Zaychenko, N. L.;
Mardaleyshvili, I. R.; Marevtsev, V. S.; Ostrovskii, M. A.;
Shienok, A. I.

L87 ANSWER 16 OF 28 HCPLUS COPYRIGHT 2006 ACS on STN
TI Adsorbents, method for the preparation and method for the
separation of unsaturated hydrocarbons for gas mixtures
IN Cho, Soon Haeng; Han, Sang Sup; Kim, Jong Nam; Choudary, Nettem
Venkateswarlu; Kumar, Prakash; Bhat, Sodankoor Garadi
Thirumaleshwara

L87 ANSWER 17 OF 28 HCPLUS COPYRIGHT 2006 ACS on STN
TI Atom transfer polymerization for manufacture of long-chain alkyl
poly(meth)acrylates as lubricating oil additives
IN Roos, Sebastian; Eisenberg, Boris; Bollinger, Joseph Martin;
Scherer, Markus

L87 ANSWER 18 OF 28 HCPLUS COPYRIGHT 2006 ACS on STN
TI Atom transfer radical polymerization for manufacture of
polyacrylates and polymethacrylates as lubricating oil additives
IN Roos, Sebastian; Eisenberg, Boris; Mueller, Michael

L87 ANSWER 19 OF 28 HCPLUS COPYRIGHT 2006 ACS on STN
TI Representation of nonideality in concentrated electrolyte
solutions using the Electrolyte NRTL model with
concentration-dependent parameters
AU Abovsky, V.; Liu, Y.; Watanasiri, S.

L87 ANSWER 20 OF 28 HCPLUS COPYRIGHT 2006 ACS on STN
TI Electrolytic materials for modulating light and an electrochromic
device containing them
IN Caillot, Eric Gilles Charles; Herlem, Michel Paul; Szekely,
Marianne Claire Martin

L87 ANSWER 21 OF 28 HCPLUS COPYRIGHT 2006 ACS on STN
TI Estimation of the Pitzer equation parameters for aqueous
complexes. A case study for uranium at 298.15 K and 1 atm
AU Plyasunov, Andrey; Fanghanel, Thomas; Grenthe, Ingmar

L87 ANSWER 22 OF 28 HCPLUS COPYRIGHT 2006 ACS on STN
TI Method of manufacturing passive elements using conductive
polypyrrole formulations
IN Murphy, Oliver J.; Hodko, Dalibor; Andrews, Craig C.; Clarke, Eric
T.; Chepin, Suchitra

L87 ANSWER 23 OF 28 HCPLUS COPYRIGHT 2006 ACS on STN
TI Stable solutions of curing accelerators for epoxy resins
IN Wegmann, Alex; Wolleb, Heinz

L87 ANSWER 24 OF 28 HCPLUS COPYRIGHT 2006 ACS on STN
TI Formation of inorganic conductive coatings on substrates
IN Moran, William P.

L87 ANSWER 25 OF 28 HCPLUS COPYRIGHT 2006 ACS on STN
TI Stabilized salt-containing sols or gels for mixing with polymer
latexes in the manufacture of coatings
IN Kissel, Charles L.

L87 ANSWER 26 OF 28 HCPLUS COPYRIGHT 2006 ACS on STN
TI Photoactivation type physical developer. II. Comparison of
palladium nuclei and silver nuclei in photoactivation type
physical development
AU Tanaka, Katsuhiko; Kokado, Hiroshi

L87 ANSWER 27 OF 28 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Study of the reaction of cobalt(II) with some sulfoxides
AU Fernandez, N. F.; Ukraintsev, V. B.

L87 ANSWER 28 OF 28 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Triazines and crosslinked polymers or copolymers
IN Emerson, William E.; Dorfman, Edwin

=>